

# ELDORA



**ELDORA MOUNTAIN RESORT  
SKI AREA PROJECTS  
FINAL ENVIRONMENTAL IMPACT STATEMENT  
APPENDICES**

**FEBRUARY 2015**

USDA FOREST SERVICE  
ROCKY MOUNTAIN REGION  
ROOSEVELT NATIONAL FOREST



**The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).**

**To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (800) 795-3272 or (202) 720-6382 (TDD).**

**USDA is an equal opportunity provider and employer.**

# **APPENDICES**

APPENDIX A: CUMULATIVE EFFECTS PROJECTS

APPENDIX B: PROPOSED FOREST PLAN AMENDMENTS

APPENDIX C: FEDERAL, STATE, AND LOCAL AGENCY COMMENT LETTERS ON THE DRAFT EIS

APPENDIX D: RESPONSE TO COMMENTS ON THE DRAFT EIS

# **Appendix A**

## **Cumulative Effects Projects**

---

## APPENDIX A: CUMULATIVE EFFECTS PROJECTS

The following past, present, and reasonably foreseeable future projects have been identified by the Forest Service as relevant for analysis in Alternatives 1, 2, and 3 from a cumulative effects context. Basic information provided here for each project is complimented in corresponding analyses in Chapter 3. Not all resources will be affected by all of these projects. More detailed project descriptions follow Table A-1. Cumulative effects analyses presented in Chapter 3 resource sections are based on these descriptions and the best available information for each project. Projects are located on NFS lands, unless otherwise noted.

**Table A-1:  
Cumulative Effects Matrix**

<b>Project (Project Status)</b>	<b>Project Location (Straight Line Distance to EMR SUP)</b>	<b>Project Description</b>	<b>Project Approval/ Implementation</b>	<b>Project Area (acres/length)</b>	<b>Lynx Analysis Unit where the Project is Located</b>	<b>Resources Potentially Affected</b>
<b>ELDORA MOUNTAIN RESORT PROJECTS</b>						
<b>2011 Master Plan</b>	Within EMR SUP and on adjacent private lands within ski area operational boundary	EMR prepared a Master Plan, which was accepted by the Forest Service in February 2011. The projects in the Master Plan that are not part of this Proposed Action and/or Alternatives 3 would require their own site specific NEPA analysis prior to implementation but are considered reasonably foreseeable future actions.	Accepted: 2011	N/A	Boulder	Fish and Wildlife Watershed Wetlands Scenery Socio-econ Recreation Plants Traffic/Parking Noise

**Table A-1:  
Cumulative Effects Matrix**

<b>Project (Project Status)</b>	<b>Project Location (Straight Line Distance to EMR SUP)</b>	<b>Project Description</b>	<b>Project Approval/ Implementation</b>	<b>Project Area (acres/length)</b>	<b>Lynx Analysis Unit where the Project is Located</b>	<b>Resources Potentially Affected</b>
<b>2012 Summer Operating Plan</b>	EMR SUP	Replace snowmaking pipe on Around the Horn trail; widen Cascade trail by removing approximately 90 trees; clean up downed trees in gladed areas in Corona and Indian Peaks pods; glade maintenance between Salto Glades and the Corona trail along with the area between Muleshoe and Bryan Glades; road maintenance including grading, cleaning culverts, and maintaining ditches; corona grading project; and mountain pine beetle (MPB) mitigation, including spraying.	2012	20 acres/misc.	Boulder	Scenery Plants Fish and Wildlife Forest Health Recreation Watershed Soils
<b>2011 Summer Operating Plan</b>	EMR SUP	Replace snowmaking pipe on Around the Horn trail; brush, stump, and deadfall removal in Corona and Indian Peaks pods; glade maintenance between Muleshoe and Bryan Glades; clear 20'x20' area at top/left of Labelle trail for ski racing start shack; construction of five winch cat pick points on the following trails: Powderhorn, Ambush, Muleshoe, Corona, and Cascade; road maintenance including grading, cleaning culverts, and maintaining ditches; and MPB mitigation, including tree removal and spraying.	2011	20 acres/misc.	Boulder	Plants Fish and Wildlife Forest Health Recreation Watershed Soils

**Table A-1:  
Cumulative Effects Matrix**

<b>Project (Project Status)</b>	<b>Project Location (Straight Line Distance to EMR SUP)</b>	<b>Project Description</b>	<b>Project Approval/ Implementation</b>	<b>Project Area (acres/length)</b>	<b>Lynx Analysis Unit where the Project is Located</b>	<b>Resources Potentially Affected</b>
<b>2009 Summer Operating Plan<sup>a</sup></b>	EMR SUP	Normal snowmaking infrastructure and trail maintenance; clean up Corona Pod Glades; slope doze and grade section of Corona trail; and MPB mitigation on private land and infected areas adjacent to Hornblower, Around The Horn, Wayback, LaBelle, Windmill, Corona, and Muleshoe trails.	2009	20 acres/misc.	Boulder	Plants Fish and Wildlife Forest Health Recreation Watershed Soils
<b>2008 Summer Operating Plan</b>	EMR SUP	Normal snowmaking infrastructure and trail maintenance; clean up Corona Pod Glades; slope doze and grade section of Corona trail; and MPB mitigation on private land and infected areas adjacent to Hornblower, Ambush, and Around The Horn trails.	2008	20 acres/misc.	Boulder	Plants Fish and Wildlife Forest Health Recreation Watershed Soils
<b>2007 Summer Operating Plan</b>	EMR SUP	Normal snowmaking infrastructure and trail maintenance; tower snow gun installations on Lower Ambush, Lower Diamondback, and Hornblower; clean up Corona Pod Glades; and mitigation of MPB.	2007	20 acres/misc.	Boulder	Plants Forest Health Fish and Wildlife Recreation Noise
<b>2006 Summer Operating Plan</b>	EMR SUP	Normal snowmaking infrastructure and trail maintenance; clean up Corona Pod Glades; ongoing chairlift and electrical maintenance; painting Cannonball chairlift; and ongoing chairlift and electrical maintenance.	2006	5 acres/misc.	Boulder	Scenery Plants

**Table A-1:  
Cumulative Effects Matrix**

<b>Project (Project Status)</b>	<b>Project Location (Straight Line Distance to EMR SUP)</b>	<b>Project Description</b>	<b>Project Approval/ Implementation</b>	<b>Project Area (acres/length)</b>	<b>Lynx Analysis Unit where the Project is Located</b>	<b>Resources Potentially Affected</b>
<b>2005 Summer Operating Plan</b>	EMR SUP	Normal snowmaking infrastructure and trail maintenance; clean up Corona Pod Glades; ongoing chairlift and electrical maintenance; and ongoing chairlift and electrical maintenance.	2005	5 acres/misc.	Boulder	Plants
<b>2004 Summer Operating Plan</b>	EMR SUP	Normal snowmaking infrastructure and trail maintenance; touch up painting on various chairlifts; ongoing chairlift and electrical maintenance; private property improvements to water treatment facility; and ongoing chairlift and electrical maintenance.	2004	5 acres/misc.	Boulder	Scenery Plants Watershed
<b>2003 Summer Operating Plan</b>	EMR SUP	Normal snowmaking infrastructure and trail maintenance; touch up painting on various chairlifts; ongoing chairlift and electrical maintenance; retro-fitting of water treatment facility to single point filtration; and ongoing chairlift and electrical maintenance.	2003	5 acres/misc.	Boulder	Scenery Plants Watershed
<b>2002 Summer Operating Plan</b>	EMR SUP	Replace snowmaking lines on Jolly Jug and Windmill, Sunset, International, Corkscrew, and Chute; reposition pipe on Westridge; trail maintenance and deadfall removal in Salto and Bryan Glades and Jolly Jug Road; touch up painting on various chairlifts; ongoing chairlift and electrical maintenance; and initiate discussion about backcountry gate/Lost Lake area.	2002	20 acres/misc.	Boulder	Scenery Plants Forest Health Fish and Wildlife Recreation Watershed

**Table A-1:  
Cumulative Effects Matrix**

<b>Project (Project Status)</b>	<b>Project Location (Straight Line Distance to EMR SUP)</b>	<b>Project Description</b>	<b>Project Approval/ Implementation</b>	<b>Project Area (acres/length)</b>	<b>Lynx Analysis Unit where the Project is Located</b>	<b>Resources Potentially Affected</b>
<b>2001 Summer Operating Plan</b>	EMR SUP	Transport snowmaking pipe to Westridge construction area prior to snow melting; install tower guns on Little Hawk Mountain, Challenge Mountain, and Corona Bowl pods; ongoing snowmaking infrastructure and trail maintenance; minor tree cutting on Jolly Jug Road; touch up painting on various chairlifts; ongoing chairlift and electrical maintenance; ongoing maintenance of mountain roads; redefinition of water bars on certain trails; reseeding of disturbed areas; and construction of new skier services building.	2001	25 acres/misc.	Boulder	Scenery Plants Fish and Wildlife Recreation Watershed Soils Noise
<b>2000 Summer Operating Plan</b>	EMR SUP	Snowmaking projects on Westridge, Corona Tower 7 Cut, and Muleshoe; tower gun installations on all three pods; ongoing snowmaking infrastructure and trail maintenance; glading of Salto Glades and Bryan Glades; minor tree cutting on Jolly Jug Road; touch up painting on various chairlifts; reseeding disturbed areas; and construction of a new skier services building.	2000	25 acres/misc.	Boulder	Scenery Plants Fish and Wildlife Recreation Watershed Soils Noise

**Table A-1:  
Cumulative Effects Matrix**

<b>Project (Project Status)</b>	<b>Project Location (Straight Line Distance to EMR SUP)</b>	<b>Project Description</b>	<b>Project Approval/ Implementation</b>	<b>Project Area (acres/length)</b>	<b>Lynx Analysis Unit where the Project is Located</b>	<b>Resources Potentially Affected</b>
<b>Winter Operating Plans</b>	EMR SUP	2000–2013: No construction projects on NFS land planned. Normal operations of the ski area continue.	2000–2012	SUP area	Boulder	Recreation Scenery Fish and Wildlife Watershed Soils Noise Socio-econ Traffic/Parking Air Quality
<b>Direct Control Efforts for Mountain Pine Beetle at Eldora Mountain Resort</b>	EMR SUP	Felling MPB infested trees and spraying unaffected trees with carbaryl.	2007	SUP area	Boulder	Watershed Soils Forest Health Fish and Wildlife Plants
<b>Past Ski Area Projects</b>	EMR SUP	Ski area infrastructure and terrain projects.	1961–present	SUP area	Boulder	Recreation Scenery Fish and Wildlife Watershed Soils Noise Socio-econ Traffic/Parking Air Quality

**Table A-1:  
Cumulative Effects Matrix**

<b>Project (Project Status)</b>	<b>Project Location (Straight Line Distance to EMR SUP)</b>	<b>Project Description</b>	<b>Project Approval/ Implementation</b>	<b>Project Area (acres/length)</b>	<b>Lynx Analysis Unit where the Project is Located</b>	<b>Resources Potentially Affected</b>
<b>Corona Trail Grading EA</b>	EMR SUP	Grading of the Corona Trail at EMR.	2011/not yet implemented	0.77 acre on NFS land	Boulder	Watershed Plants Soils Recreation Fish and Wildlife Noise
<b>RESIDENTIAL/COMMERCIAL DEVELOPMENT PROJECTS</b>						
<b>Continued Nederland and Eldora Residential Build-out</b>	< 10 miles	Potential future development in adjacent towns.	N/A	N/A	Boulder	Socio-Econ Traffic/Parking Air Quality Fish and Wildlife Watershed Plants Noise
<b>LAND STATUS PROJECTS</b>						
<b>Forest Legacy Conservation Easement</b>	Adjacent to EMR SUP	Application of a conservation easement to private property adjacent to EMR.	Projected 2014	3,600 acres	Boulder	Recreation Forest Health Fish and Wildlife Plants Watershed/ Wetlands/Soils
<b>Peper Private Property Access</b>	East of Lost Lake, Eldora	Private property owner proposal to build an access road to property surrounded by NFS lands.	2007	5,170 feet	Boulder	Watershed/Soils Fish and Wildlife Plants

**Table A-1:  
Cumulative Effects Matrix**

<b>Project (Project Status)</b>	<b>Project Location (Straight Line Distance to EMR SUP)</b>	<b>Project Description</b>	<b>Project Approval/ Implementation</b>	<b>Project Area (acres/length)</b>	<b>Lynx Analysis Unit where the Project is Located</b>	<b>Resources Potentially Affected</b>
<b>FOREST HEALTH AND FUELS PROJECTS</b>						
<b>Lump Gulch Fuels Treatment Project</b>	Nederland	Vegetation management projects to reduce fuel load.	2009	1,642 acres	Boulder	Recreation Forest Health/Fuels Fish and Wildlife Plants Air Quality Soils Watershed
<b>Forsythe Fuels Reduction Project</b>	Nederland	Vegetation management projects to reduce fuel load.	2012	5,214 acres	Boulder	Recreation Forest Health/Fuels Plants Fish and Wildlife Air Quality Watershed/ Wetlands/Soils
<b>Nederland Water Treatment Plant Fuels Reduction Project</b>	Nederland	Vegetation management project to reduce fuel loads.	2012	5 acres	Boulder	Recreation Forest Health/Fuels Plants Fish and Wildlife Air Quality Watershed/ Wetlands/Soils

**Table A-1:  
Cumulative Effects Matrix**

<b>Project (Project Status)</b>	<b>Project Location (Straight Line Distance to EMR SUP)</b>	<b>Project Description</b>	<b>Project Approval/ Implementation</b>	<b>Project Area (acres/length)</b>	<b>Lynx Analysis Unit where the Project is Located</b>	<b>Resources Potentially Affected</b>
<b>WATER PROJECTS</b>						
<b>Moffat Collection System EIS</b>	10.5 miles	The Moffat Collection System Project proposes to enlarge Gross Dam's height from its current 340 feet to approximately 465 feet to increase the reservoir's capacity.	Unknown	N/A	N/A	Watershed/ Wetlands Fish and Wildlife Plants Forest Health/Fuels
<b>Jenny Creek Restoration and Reroute of Motorized Trail</b>	2 miles	Reroute 0.75 mile of four-wheeled drive road out of Jenny Creek creek bed and revegetate old route.	2013	0.75 mile	Boulder	Recreation Watershed/ Wetlands/Soils Fish and Wildlife Plants Forest Health/Fuels
<b>NON-SKI-BASED RECREATION</b>						
<b>Recreational Use Outside of the Ski Area</b>	< 10 miles	Fourth of July Road trailhead, West Magnolia (West Magnolia is west of Hwy 119 and south of Nederland, is popular for OHV and mtn. biking)	N/A	N/A	Boulder	Recreation Fish and Wildlife Plants Wetlands/Soils Traffic/Parking
<b>HISTORIC DEVELOPMENT</b>						
<b>Mining Activities</b>	< 10 miles	The area surrounding Eldora and Nederland has been mined since the mid-19th century.	N/A	N/A	Boulder	Watershed/Soils Fish and Wildlife Plants Socio-econ

**Table A-1:  
Cumulative Effects Matrix**

<b>Project (Project Status)</b>	<b>Project Location (Straight Line Distance to EMR SUP)</b>	<b>Project Description</b>	<b>Project Approval/ Implementation</b>	<b>Project Area (acres/length)</b>	<b>Lynx Analysis Unit where the Project is Located</b>	<b>Resources Potentially Affected</b>
<b>OTHER</b>						
<b>Communications Tower</b>	Within EMR SUP	Boulder County proposes to construct a 60-foot tall communications tower near the Lookout at EMR.	March 2014	312 sq. ft. building footprint	Boulder	Scenery
<b>Public and Private Road Infrastructure</b>	N/A	Roads, including Forest, State, County, and private (e.g., Eldora Road, Lake Eldora Ski Road, Fourth of July Road, Sections of Colorado Hwy 72 and 119, and others)	N/A	N/A	Boulder	Recreation Watershed/Soils Fish and Wildlife Plants

<sup>a</sup> A Summer Operating Plan for 2010 was not approved by Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARP)

## **A. ELDORA MOUNTAIN RESORT PROJECTS**

### **MASTER PLAN**

EMR prepared a Master Plan, which was accepted by the Forest Service in February, 2011. The projects in the Master Plan, listed below, that are not part of the Proposed Action and/or Alternative 3 are considered reasonably foreseeable future actions. The Master Plan includes (previously-approved projects are presented under a subsequent heading):

#### **Chairlift Additions**

- Construction of a new dual-purpose, out-of-base, fixed-grip quad chairlift to access novice terrain on lower *Four O'Clock* trail, as well as to provide access to the Indian Peaks/Corona Bowl areas during wind events when access to the summit, is not an option (private lands)
- Construction of the new Moose Glade detachable chairlift and advanced trail pod on the northwestern portion of the SUP boundary. Requires SUP boundary adjustment

#### **Terrain Improvements**

- Approximately 7 acres of trail grading within the Little Hawk and EZ pods (private lands)
- Additional advanced terrain in the Moose Glade chairlift/terrain pod

#### **Guest Services**

- Expand and renovate the Indian Peaks Lodge (private lands)

#### **Snowmaking**

- Construction of an additional snowmaking reservoir (private lands)
- Provide snowmaking coverage on all new trails

#### **Operations**

- Construction of a new ski patrol duty station at the summit of Challenge Mountain

### **OPERATING PLANS**

EMR has produced operating plans annually since 2000. These operating plans are approved by the Forest Service and contain projects such as chairlift, trail, and other infrastructural maintenance.

### **DIRECT CONTROL EFFORTS FOR MOUNTAIN PINE BEETLE CE**

In 2007 the Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARP) approved a proposal by EMR to initiate direct control methods against Mountain Pine Beetle (MPB) at the resort. The proposal included felling infested trees, spraying unaffected trees with Carbaryl, and identifying areas for future treatment within the SUP.

## **PAST SKI AREA PROJECTS**

EMR first opened for skiing in 1961 with two T-bar chairlifts to serve visitors. A base lodge was constructed for the 1963/64 season on private lands at the base of the mountain. In the 1973 the owners invested in significant upgrades to infrastructure, replacing one T-bar with the Cannonball chairlift up the front-side of the area, and constructing the Corona double up the back-side. The Sundance chairlift was added in 1975 and the Caribou chairlift in 1980. During the 1980s, development at EMR was relatively stagnant. In the 1990s a number of projects were executed: the Challenge chairlift was installed on the front-side of the area; the Corona Bowl was reopened with 85 acres of new terrain; the Indian Peaks chairlift was installed on the back-side of the area; and an additional parking lot was constructed. Since the 1990s, the Corona chairlift was replaced, another beginner chairlift was installed, the Indian Peaks lodge was constructed, and a snowmaking reservoir was built.

## **PREVIOUSLY-APPROVED, NOT YET IMPLEMENTED PROJECTS**

### **Corona Trail Grading Environmental Assessment**

As part of the 2011 DN/FONSI, the Forest Service approved the reconstruction of a portion of the Corona Trail. The trail will be re-graded to widen the skiable terrain along a steep segment of the trail where there is currently a dangerous “pinch-point.” The skiable width at this point will be increased by 72 feet, for a total skiable width of 90 feet. Ground disturbance for this project is 0.77 acre and 0.46 acre on NFS lands and private lands, respectively, for a total of approximately 1.23 acres. It will involve the relocation of approximately 2,850 cubic yards of earth material from the western side of the trail to the gully on the eastern side of the trail, filling in a portion of the existing gully to create a more consistent grade across the entire trail width. The project includes limited overstory removal of mixed-conifer vegetation along the skier’s left (western) trail edge, ranging from 0 to 40 feet in width; approximately 0.30 acre on NFS lands and 0.03 acre on private lands.

## **B. RESORT AND RESIDENTIAL/COMMERICAL DEVELOPMENT PROJECTS**

### **CONTINUED NEDERLAND, ELDORA, AND HESSIE TOWNSITE BUILDOUT**

It is reasonably foreseeable that the towns of Nederland, Eldora, and the Hessie Townsite could experience future growth and development. These areas could see both increased residential and commercial development in the future.

## **C. LAND STATUS PROJECTS**

### **FOREST LEGACY CONSERVATION EASEMENT**

The Conservation Fund has entered into negotiations with property owners of private land adjacent to EMR (the Toll family) to apply a conservation easement to a land parcel adjacent to the resort. The conservation easement would include approximately 3,600 acres of property currently owned by the Toll

family. The easement would allow for the continuation of current EMR operations on this property (e.g., Nordic Center trails). The easement would also allow for future expansion of the Jolly Jug chairlift by EMR, should EMR obtain all necessary governmental approvals and landowner agreements for the expansion. The easement would also include a Forest Stewardship Plan to provide for the long-term management of natural resources on the property.

## **PEPER PRIVATE PROPERTY ACCESS**

In 2001 the Forest Service was approached by a landowner seeking access to two privately owned mining claims located east of Lost Lake. In a 2007 decision, Mr. Kenneth E. Peper was granted access to the property via Forest and Private Road Easements. The Forest Road Easement begins at the intersection of Boulder County Roads 130 and 111 and ends at the North Fork of Middle Boulder Creek. The Private Road Easement begins at the North Fork of Middle Boulder Creek, ending at the property boundary of the private property owned by Mr. Peper. This access includes a bridge across the South Fork of Middle Boulder Creek and a low-water crossing of the North Fork of Middle Boulder Creek. The Forest Road Easement is approximately 2,640 feet long and the Private Road Easement is approximately 2,530 feet long. The easement corridor for the Forest Road Easement and the Private Road Easement is 20 feet wide and suitable for medium clearance four-wheeled drive vehicles. The driving surface is 12 feet wide, up to 16 feet where necessary for curves. On the Private Road Easement, approximately 550 feet is along Forest Service trail 902, a non-motorized trail. Then approximately 1,310 feet is along Forest Service trail 902.2, a non-motorized trail. Finally, approximately 680 feet of new construction is required to reach the property.

## **D. FOREST HEALTH AND FUELS PROJECTS**

### **LUMP GULCH FUELS TREATMENT PROJECT**

The Lump Gulch Fuels Treatment Project is intended to reduce the fuel load through mechanical treatments (thinning, patchcuts, clearcuts), manual thinning with chainsaws, chipping, lopping and scattering, and pile burning of slash fuel reduction treatments. The Decision Notice was signed in 2009. The Lump Gulch project includes treatments across an 11,787-acre project area in the vicinity of Rollinsville and Nederland. Treatments are applied on approximately 1,642 acres of NFS lands. Project implementation has occurred on the Lump Gulch project near Nederland and will soon occur on the Lumpy-Tung project southeast of Nederland and in the Lump Gulch area. Projects to be implemented after 2014 include Thorn near Rollinsville and fuel breaks adjacent to private property and roads.

### **FORSYTHE FUELS REDUCTION PROJECT**

The Forsythe Fuels Reduction Project is intended to reduce the fuel load through mechanical treatments with logging equipment and manual treatments with chainsaws (thinning, patchcuts, sanitation/salvage), chipping, lopping and scattering, and pile burning of slash. Prescribed broadcast burning is also authorized on the south slope of Winiger Ridge near Gross Reservoir. The Decision Notice was signed in

2012. The Forsythe project includes treatments across an 18,120-acre project area in the vicinity of Gross Reservoir, Wondervu, Pinecliffe, and Nederland. Project implementation has occurred on the South Winiger project near Gross Reservoir and will soon occur on the Lazy Z project also near Gross Reservoir. Projects to be implemented in 2014 or later include Scouts near the Front Range Trailhead, Boiler and North Pinecliffe near Pinecliffe, and sanitation/salvage activities throughout authorized portions of the project area.

## **NEDERLAND WATER PLANT FUELS REDUCTION PROJECT**

The Nederland Water Plant Fuels Reduction Project authorized the City of Nederland to complete fuel reduction activities within the project area and is intended to reduce the fuel load through thinning and sanitation/salvage treatment by mechanical or manual means. The Decision Memo was signed in 2012. The Nederland Water Plant Fuels Reduction Project includes treatments across a 5-acre treatment area in the vicinity of Nederland near the Nederland Water Treatment Plant and the Nederland High School. Project implementation will occur in the within the next two to three years.

## **E. WATER PROJECTS**

### **MOFFAT COLLECTION SYSTEM EIS**

The Moffat Collection System Project will provide 18,000 acre feet of annual supply by enlarging Gross Reservoir, an existing reservoir. The current dam height will increase by approximately 130 feet, nearly tripling the reservoir's capacity. The project will increase the reservoir's current storage capacity of 41,811 acre feet to approximately 119,000 acre feet, which includes a 5,000-acre foot environmental pool. The environmental pool will be used to enhance streamflows in South Boulder Creek below Gross Reservoir. Water supplied to the Moffat Collection System is proposed to be diverted from either Colorado West Slope tributaries of the Colorado River or from the South Platte River in the Colorado Front Range. These diversions could affect the watershed and aquatic species in the study area.

### **JENNY CREEK RESTORATION AND REROUTE OF MOTORIZED TRAIL**

A 2013 decision approved a proposal to reroute approximately three-quarter of a mile of a four-wheeled drive motorized trail out of the Jenny Creek streambed and restore the current/old route to a natural condition. The location of this project is approximately 1 mile southeast of Yankee Doodle Lake.

## **F. NON-SKI-BASED RECREATION**

### **RECREATIONAL USE OUTSIDE OF THE SKI AREA**

Within the Boulder Ranger District of the ARP there are numerous areas that experience heavy recreational use. Nearest to EMR are the Hessie and Fourth of July Road trailheads. These trailheads provide access to the Indian Peaks Wilderness. Most recreation in this area is dispersed, and no mountain biking is allowed in the Wilderness.

West Magnolia is a popular recreation area south of Nederland. There are numerous trails here open to off-highway vehicles and mountain bikes.

## **G. HISTORIC DEVELOPMENT ACTIVITIES**

### **MINING ACTIVITIES**

The first development of Eldora area occurred in the mid-19th century when mining activities began. The Caribou silver mine was a productive mine located near Nederland. The area then transitioned to tungsten mining found to the northeast of Nederland early in the 20th century. This historic activity has affected soils and watershed in the vicinity of EMR.

## **H. OTHER**

### **COMMUNICATIONS TOWER**

In 2013 the Boulder County Sheriff's Office issued a proposal to construct a 60-foot tall communications tower on Forest Service lands near the Lookout Restaurant at the EMR. There would also be a one-story 12 foot by 26 foot communication building for electronics, a backup generator and a 500-gallon propane tank. In addition, a 400-foot long buried utility line would be installed from an existing electrical transformer to the tower site. Approval and implementation is expected in March 2014.

### **PUBLIC AND PRIVATE ROAD INFRASTRUCTURE**

The development of road infrastructure in the area surrounding EMR has effects on soil and watershed resources, plants, and wildlife. Connected roads increase the intensity of surface runoff and constitute a source of sediment input into the stream system. Road infrastructure can facilitate the spread of noxious weeds and can impact wildlife habitat. The total length of existing roads within the spatial extent of the cumulative effects analysis is approximately 40 miles, with a corresponding road density of 0.9 mile per square mile.

# **Appendix B**

## **Proposed Forest Plan Amendments**

## **APPENDIX B: PROPOSED FOREST PLAN AMENDMENTS**

### **A. FOREST SERVICE DIRECTION FOR AMENDING FOREST PLANS**

Forest Service requirements for amending forest plans are included in agency regulations and policies. These require that proposed activities be consistent with forest plans and that proposed activities which may be in conflict with the Forest Plan either be denied, modified (so as to be consistent), or that the Forest Plan be amended. The Forest Service is authorized to implement amendments to forest plans in response to changing needs and opportunities, information identified during project analysis, or the results of monitoring and evaluation. The process to consider Forest Plan Amendments, review them for significance, document results, and reach a decision is contained in 36 CFR 219.13 and Forest Service Manual (FSM) 1926.5.

If the responsible official determines that a Forest Plan Amendment is appropriate and necessary, regulations at 36 CFR 219.13(a) directs the Forest Service to consider whether a proposed amendment to a forest plan would be considered a significant change.

The Forest Service is authorized to implement amendments to forest plans in response to changing needs and opportunities, information identified during project analysis, or the results of monitoring and evaluation. The process to consider Forest Plan Amendments, review them for significance, document results, and reach a decision is contained in FSM 1926. An assessment of a proposed amendment's significance in the context of the larger Forest Plan is a crucial part to the process. It is important to note that the definition of significance for amending a forest plan (36 CFR 219.13(a) and FSM 1926.5) is not the same significance as defined by NEPA. Under NEPA, significance is determined by whether a proposal is considered to be a "major federal action significantly affecting the quality of the human environment," or whether the relative severity of the environmental impacts would be significant based on their context and intensity.<sup>1</sup>

In contrast, the National Forest Management Act (NFMA) requires that proposed Forest Plan Amendments be evaluated for whether they would constitute a significant change in the long-term goods, outputs, and services projected for an entire National Forest. Amendments that are not significant may be adopted following disclosure and notification in an environmental document, such as an EA, EIS, or a supplement to one of these documents.

The criteria to analyze the significance of a Forest Plan Amendment are summarized below.<sup>2</sup> Each of the four criteria for determining significance of the proposed amendment is responded to directly later.

---

<sup>1</sup> 40 CFR 1502.3; 40 CFR 1508.27

<sup>2</sup> USDA Forest Service, 1994 (FSH 1909.12)

1. Timing. When the change in the Forest Plan would take place relative to the planning period and scheduled revisions of the plan.
2. Location and size. Location and size of the area affected compared to the size for the overall planning area.
3. Goals, Objectives, and Outputs. How, or to what degree, the amendment would affect the long-term relationship between levels of goods and services projected by the Forest Plan.
4. Management Prescription. Whether the change would apply only to a specific situation, or to future situations across the planning area.

## **B. PROPOSED AMENDMENTS TO THE ARP LAND AND RESOURCE MANAGEMENT PLAN**

Non-significant Forest Plan Amendments are proposed: to assign and change Forest Plan management area allocations, Scenic Integrity Objectives (SIOs) and Recreation Opportunity Spectrum (ROS) classifications that would be within the proposed SUP boundary adjustment area; and to remove the applicability of Forest Plan Standard 99 to the Middle Boulder Creek riparian area along the proposed northern SUP boundary.

In February 2011 the ARP accepted the EMR 2011 Master Plan. The 2011 Master Plan identified upgrade projects located outside of the existing SUP area boundary including the Jolly Jug chairlift, Placer chairlift, Moose Glade chairlift and associated trails. The Upgrade Plan contained in the 2011 Master Plan anticipated a need for a SUP boundary adjustment in order to complete the three planned projects. The 2011 Master Plan was accepted by the ARP with the following expectation:

*It is anticipated that a future site-specific NEPA process would analyze the planned SUP boundary adjustment and potentially the reallocation of management areas to Management Area 8.22 within the planned SUP Boundary.<sup>3</sup>*

A Forest Plan Amendment is proposed for Alternatives 2 and 3 to assign and change the Forest Plan management area allocations within the existing SUP boundary and for areas of the proposed SUP boundary adjustments (the SUP boundary adjustments are depicted in Figure 11). Currently there are several NFS lands within the existing SUP boundary that have not been officially designated with a management area. In addition, the SUP boundary adjustment areas associated with the proposed projects are allocated as Management Area 1.3 – Backcountry Recreation, Management Area 4.3 – Dispersed Recreation, Management Area 7.1 – Residential-National Forest Intermix, and a portion of the area has not been officially designated with a management area. Refer to Section C of this appendix for relevant Forest Plan management area descriptions.

---

<sup>3</sup> Eldora Mountain Resort, 2011

Through this Forest Plan Amendments process, Forest Plan standards and guidelines, the SIO, and the ROS would be amended to more accurately correspond with Management Area 8.22 – Ski-Based Resorts (refer to Figure 11 for the management area boundaries and SIO designations).<sup>4</sup>

In addition, a Forest Plan Amendment is proposed for only Alternative 2 to remove the applicability of Forest Plan Standard 99 to the Middle Boulder Creek riparian area along the proposed northern SUP boundary.

## ALTERNATIVE 1 – NO ACTION

No changes or modifications would be approved that would affect the SUP boundary, SIOs or the ROS within the SUP area. Forest Plan Standard 99 would not be amended.

## ALTERNATIVE 2 – PROPOSED ACTION

Table B-1 summarizes the management area amendment and the proposed ROS, SIO and acres. Refer to Section D in this appendix for a description of ROS classifications.

**Table B-1:**  
**Forest Plan Amendment Summary – Alternative 2**

Location	Management Area	ROS	SIO	Acres
Within Existing SUP Boundary	Existing: Not Officially Designated	None	None	11
	Proposed: 8.22 – Ski-Based Resorts	Rural	Low	
Placer Express Chairlift and Terrain Area	Existing: Not Officially Designated	None	None	21
	Proposed: 8.22 – Ski-Based Resorts	Rural	Low	
Placer Express Chairlift and Terrain Area	Existing: 7.1 – Residential-National Forest Intermix	Rural	Moderate	10
	Proposed: 8.22 – Ski-Based Resorts	Rural	Low	
Jolly Jug Chairlift and Terrain Area	Existing: 1.3 – Backcountry Recreation	Semiprimitive Non-Motorized	High	11
	Proposed: 8.22 – Ski-Based Resorts	Rural	Low	

The Proposed Action would amend the Forest Plan to assign and change management areas near Middle Boulder Creek and change the management area near the proposed Jolly Jug project area. These Forest Plan changes would allocate the NFS lands within the existing SUP boundary and the proposed SUP boundary as Management Area 8.22 – Ski-Based Resorts. The proposed SUP boundary adjustment is associated with Management Area 7.1 – Residential-National Forest Intermix and Management Area 1.3 – Backcountry Recreation, as well as a portion of NFS lands that currently do not have an official management area allocation (refer to Figure 11). *Note: the Forest Plan was not formally amended*

<sup>4</sup> Note: Through this DEIS analysis process, the Forest Service identified mapping errors in two areas of the southern part of the SUP area: 1) near the existing Jolly Jug Glades, and 2) just south of the existing Lookout facility. The Forest Plan, as amended, erroneously designated these two areas within the existing SUP boundary as Management Area 1.3 – Backcountry Recreation; therefore, this correction has been made to the mapping for this EIS process. The record for the mapping changes can be found in the project file for the Forest Plan.

*subsequent to the acquisition of the lands near Middle Boulder Creek (within and beyond the current SUP boundary) by the ARP, so the lands do not include an official management area allocation.*

- Within the existing SUP boundary, the Forest Plan Amendment would assign 11 acres of lands that are not officially designated in the Forest Plan as Management Area 8.22 – Ski-Based Resorts.
- In the Middle Boulder Creek area associated with the proposed Placer chairlift and terrain, the Forest Plan Amendment would assign 21 acres of lands that are not officially designated in the Forest Plan as Management Area 8.22 – Ski-Based Resorts.
- In the Middle Boulder Creek area associated with the proposed Placer chairlift and terrain, the Forest Plan Amendment would change 10 acres of Management Area 7.1 – Residential-National Forest Intermix to Management Area 8.22 – Ski-Based Resorts.
- In the Jolly Jug area, the Forest Plan Amendment would change 11 acres of Management Area 1.3 – Backcountry Recreation to Management Area 8.22 – Ski-Based Resorts.

*Note: There are currently approximately 44 acres of Management Area 8.22 that is located beyond the current SUP boundary and is within the proposed SUP boundary adjustment.*

The aforementioned 42 acres (31 + 11 acres) beyond the current SUP boundary would be amended to Management Area 8.22 – Ski-Based Resorts, incorporated into the SUP area, and would also be assigned the SIO of *Low*. Additionally, the 44 acres that is currently Management Area 8.22 – Ski-Based Resorts would also be included in the proposed SUP boundary for a total SUP boundary change of 86 acres (42 + 44 acres).

The Proposed Action would remove the applicability of Forest Plan Standard 99 to the Middle Boulder Creek riparian area along the proposed northern SUP boundary. This amendment would apply only to this location for this project.

### **ALTERNATIVE 3**

Table B-2 summarizes the management area amendment and the proposed ROS, SIO and acres.

**Table B-2:  
Forest Plan Amendment Summary – Alternative 3**

Location	Management Area	ROS	SIO	Acres
Within Existing SUP Boundary	Existing: Not Officially Designated	None	None	11
	Proposed: 8.22 – Ski-Based Resorts	Rural	Low	
Jolly Jug Chairlift and Terrain Area	Existing: 1.3 – Backcountry Recreation	Semiprimitive Non-Motorized	High	10
	Proposed: 8.22 – Ski-Based Resorts	Rural	Low	
Jolly Jug Chairlift and Terrain Area	Existing: 4.3 – Dispersed Recreation	Roaded Natural	Moderate	0.5
	Proposed: 8.22 – Ski-Based Resorts	Rural	Low	

Alternative 3 would amend the Forest Plan to assign a management area within the existing SUP area on the northern side of the SUP boundary and change the management area near the proposed Jolly Jug project. These Forest Plan changes would allocate the NFS lands within the existing SUP boundary and the proposed SUP boundary as Management Area 8.22 – Ski-Based Resorts. The proposed SUP boundary adjustment is associated with Management Area 1.3 – Backcountry Recreation, Management Area 4.3 – Dispersed Recreation, as well as a portion of NFS lands that currently do not have an official management area allocation (refer to Figure 11). *Note: the Forest Plan was not formally amended subsequent to the acquisition of the lands near Middle Boulder Creek (within the current SUP boundary) by the ARP, so the lands do not include an official management area allocation.*

- Within the existing SUP boundary, the Forest Plan Amendment would assign 11 acres of lands that are not officially designated in the Forest Plan as Management Area 8.22 – Ski-Based Resorts.
- In the Jolly Jug project area, the Forest Plan Amendment would change 10 acres of Management Area 1.3 – Backcountry Recreation to Management Area 8.22 – Ski-Based Resorts.
- In the Jolly Jug project area, the Forest Plan Amendment would change approximately 0.5 acre of Management Area 4.3 – Dispersed Recreation to Management Area 8.22 – Ski-Based Resorts.

*Note: There are currently approximately 7 acres of Management Area 8.22 – Ski-Based Resorts that is located beyond the current SUP boundary and is within the proposed SUP boundary adjustment.*

The aforementioned approximately 11 acres (10 + 0.5 acres) beyond the current SUP boundary would be amended to Management Area 8.22 – Ski-Based Resorts, incorporated into the SUP area, and would also be assigned the SIO of *Low*. Additionally, the 7 acres that is currently Management Area 8.22 – Ski-Based Resorts would also be included the proposed SUP boundary for a total SUP boundary change of 18 acres (11 + 7 acres).

Forest Plan Standard 99 would not be amended under Alternative 3.

## RATIONALE

The Forest Plan states:

*The amendment process changes a discrete component of management direction in a forest plan. Unless circumstances warrant a revision, the amendment process should generally be initiated whenever the Forest Supervisor determines through monitoring and evaluation that achievement of a forest-wide objective is unduly constrained by conflicting Forest Plan direction or that adequate progress toward achieving the desired future condition is not being made.*

*Other needs for amendments may arise-from agency-initiated projects or external proposals. An environmental assessment or environmental impact statement prepared for the project or proposal evaluates the consequences of the proposed amendment and alternatives to it.*

*Significant and non-significant amendments are defined in 36 CFR 219.10(f). Generally speaking, significant amendments are those that affect the long-term balance of goods and services produced on the forest.<sup>5</sup>*

The alternatives were reviewed for consistency with Forest Plan standards and guidelines, as well the criteria to analyze the significance of a Forest Plan Amendment.<sup>6</sup>

### **Alternative 1 – No Action**

Under the No Action Alternative, no changes or modifications would be approved and no SUP boundary adjustments would be necessary. EMR's SUP boundary would continue to occupy 524 acres of NFS lands. No changes to surrounding management area prescriptions are proposed. No impacts would occur along the riparian area of Middle Boulder Creek. Alternative 1 is consistent with Forest Plan standards and guidelines.

### **Alternative 2 – Proposed Action**

Alternative 2 would allocate lands within and adjacent to the existing SUP boundary as Management Area 8.22 – Ski-Based Resorts and permit the lands to be utilized for ski area activities resulting in an SUP area encompassing 610 acres of NFS lands. Within the existing SUP boundary, the Forest Plan Amendment would assign 11 acres of lands that are not officially designated in the Forest Plan as Management Area 8.22 – Ski-Based Resorts. The current management area allocations for those lands that would be incorporated into the proposed SUP boundary include: lands that are not officially designated in the Forest Plan as Management Area 8.22 – Ski-Based Resorts (21 acres), Management

---

<sup>5</sup> USDA Forest Service, 1997a p. v-vi

<sup>6</sup> USDA Forest Service, 1994 (FSH 1909.12)

Area 7.1 – Residential-National Forest Intermix (10 acres), and Management Area 1.3 – Backcountry Recreation (11 acres). The Forest Service has reviewed the Forest Plan standards and guidelines for these areas, as well as their proximity to the existing SUP boundary, to assess compatibility with Management Area 8.22 – Ski-Based Resorts.

The NFS lands that do not currently include a Forest Plan management area allocation are adjacent to lands currently allocated as Management Area 8.22 – Ski-Based Resorts. These lands would be managed as Management Area 8.22 – Ski-Based Resorts and would include specific standards and guidelines, SIO designation and ROS designation (refer to section C in this appendix for a description of management area direction).

Management Area 7.1 – Residential-National Forest Intermix does not include management area-specific standards and guidelines. Management Area 8.22 – Ski-Based Resorts standards and guidelines would apply to the 10 acres of the ARP that would be incorporated into Management Area 8.22 – Ski-Based Resorts. The ROS would not change and would continue to be *Rural*. In addition, the SIO would decrease in scenic integrity from *Moderate* to *Low*. By incorporating 10 acres of Management Area 7.1 – Residential-National Forest Intermix into Management Area 8.22 – Ski-Based Resorts, this Forest Plan Amendment would change the desired conditions of these lands to ski-based activities and would include additional management area standards and guidelines.

Management Area 1.3 – Backcountry Recreation includes one guideline, “1. (GL) Do not construct new roads,” which would no longer apply, and Management Area 8.22 – Ski-Based Resorts standards and guidelines would apply to the 11 acres of the ARP that would be incorporated into Management Area 8.22 – Ski-Based Resorts. Alternative 2 would replace the one guideline in Management Area 1.3 – Backcountry Recreation that discourages the construction of new roads. Management Area 8.22 – Ski-Based Resorts allows for the construction of roads for ski area operations. Within the area currently allocated as Management Area 1.3 (11 acres), the Proposed Action does not propose the construction of roads; however, if conditions necessitate in the future, EMR could propose a road(s) within this area. This would require additional environmental review in accordance with NEPA. The ROS would change from *Semiprimitive Non-Motorized* to *Rural*. This change would reflect an experience that would be considered more developed in terms of infrastructure and interaction with people. In addition, the SIO would decrease in scenic integrity from *High* to *Low*.

Alternative 2 would remove the applicability of Forest Plan Standard 99 to the Middle Boulder Creek riparian area. This amendment would only apply to approximately 200 feet along Middle Boulder Creek at the proposed location of the Placer Express chairlift bottom terminal. At this location, the bottom terminal of the lift is proposed with vegetation removal on the southern side of Middle Boulder Creek. On the northern side of Middle Boulder Creek at this location, County Road 130 is immediately adjacent to the creek and has previously altered the riparian area. This amendment to the Forest Plan would allow for

vegetation removal and projects to be located within the riparian area; however, the amendment is not anticipated to preclude the movement of wildlife through this area.

As per FSH 1909.12, the four criteria for determining significance of the proposed amendments are responded to directly.

**1. Timing. When the change in the Forest Plan would take place relative to the planning period and scheduled revisions of the plan.**

The ARP is currently not undertaking a formal Forest Plan revision process. Because the completion of the Forest Plan revision process is not imminent and the last Forest Plan revision was approximately 16 years ago, these non-significant Forest Plan Amendments are being proposed at an appropriate time. In addition, guidance states that in most cases, the later the change, the less likely it is to be significant to the current forest plan.<sup>7</sup> The current Forest Plan was authorized in 1997; these amendments would help keep management within the plan consistent with current planning in this area. These changes would take place during this planning period.

**2. Location and Size. Location and size of the area affected compared to the size for the overall planning area.**

The ARP includes approximately 1.5 million acres of forests and grassland in north central Colorado. This proposed Forest Plan Amendment would pertain to the assignment and change of management areas on NFS lands beyond the existing 524-acre SUP boundary. The amended land allocations would be contiguous with existing lands allocated as Management Area 8.22 – Ski-Based Resorts. The management area assignment and change would apply to 53 acres. This Forest Plan Amendment does not apply to other lands across the ARP. Alternative 2 would increase the acreage of existing Management Area 8.22 – Ski-Based Resorts on the ARP from 16,752 acres to 16,805 acres, an increase of 0.3 percent.

Under Alternative 2, 11 acres of Management Area 1.3 – Backcountry Recreation would change to Management Area 8.22 – Ski-Based Resorts. Currently, there are 172,442 acres of Management Area 1.3 on the ARP, and Alternative 2 would result in 172,431 acres of Management Area 1.3 on the ARP; a reduction of approximately 0.006 percent. Backcountry recreation does occur within other management areas on the ARP.

Under Alternative 2, 10 acres of Management Area 7.1 – Residential-National Forest Intermix would change to Management Area 8.22 – Ski-Based Resorts. Currently, there are 128,780 acres of Management Area 7.1 – Residential-National Forest Intermix on the ARP, and Alternative 2

---

<sup>7</sup> Ibid. Section 5.32(3)(a)

would result in 128,770 of Management Area 7.1 – Residential-National Forest Intermix on the ARP; a reduction of approximately 0.008 percent.

The removal of the applicability of Standard 99, which applies to approximately 200 feet along the riparian area of Middle Boulder Creek that serves as a wildlife travel corridor is spatially negligible in the context of the overall ARP.

**3. Goals, Objectives, and Outputs. How, or to what degree, the amendment would affect the long-term relationship between levels of goods and services projected by the Forest Plan.**

Development and utilization of the ARP within the EMR SUP was anticipated in the Forest Plan. In general the Boulder Creek Geographic Area is meant to be managed for year-round recreational use. An emphasis was placed on working and cooperating with the EMR to develop a sustainable vegetation management plan for EMR and to formalize access through the ski area for the Jenny Creek Trail.

Long-term goods and services within the management area and adjusted SUP boundary would meet the goals, objectives, and outputs of Management Area 8.22 – Ski-Based Resorts in accordance with the Forest Plan. Additionally, the removal of the applicability of Standard 99, which applies to approximately 200 feet along the riparian area of Middle Boulder Creek that serves as a wildlife travel corridor would not affect the long-term goods and services within the management area. Due to the size and specificity, these amendments would not alter the long-term relationship between levels of goods and services projected by the Forest Plan.

**4. Management Prescription. Whether the change would apply only to a specific situation, or to future situations across the planning area.**

These proposed Forest Plan Amendments are specific to 53 acres. These amendments would not apply to Management Area 8.22 – Ski-Based Resorts, Management Area 1.3 – Backcountry Recreation or Management Area 7.1 – Residential-National Forest Intermix in their entirety across the ARP or any other current or future situations on the ARP.

The proposed amendment to Forest Plan Standard 99 applies to a length along Middle Boulder Creek of approximately 200 feet. This is the area adjacent to the proposed bottom terminal location of the Placer Express chairlift. This amendment would not apply to the entire SUP boundary or Management Area 8.22 in its entirety across the ARP or any other current or future situations on the ARP.

For these reasons, these proposed Forest Plan Amendments are non-significant amendments to the Forest Plan.

Any future ski area projects within Management Area 8.22 – Ski-Based Resorts (at EMR or other developed winter sports permittees) will be evaluated within separate, project specific NEPA analysis for compliance with Forest Plan direction. The proposed Forest Plan Amendments and management area allocation change would take effect following issuance of a Record of Decision for this EIS. In addition, an amendment to EMR’s SUP would occur subsequent to the Record of Decision.

### **Alternative 3**

Alternative 3 would allocate lands within and adjacent to the existing SUP boundary as Management Area 8.22 – Ski-Based Resorts and permit the lands to be utilized for ski area activities resulting in an SUP area encompassing 542 acres of NFS lands. Within the existing SUP boundary, the Forest Plan Amendment would assign 11 acres of lands that are not officially designated in the Forest Plan as Management Area 8.22 – Ski-Based Resorts. The current management area allocations for those lands that would be incorporated into the proposed SUP boundary include: Management Area 1.3 – Backcountry Recreation (10 acres), and Management Area 4.3 – Dispersed Recreation (0.5 acre). The Forest Service has reviewed the Forest Plan standards and guidelines for these areas, as well as their proximity to the existing SUP boundary, to assess compatibility with Management Area 8.22 – Ski-Based Resorts.

The NFS lands that do not currently include a Forest Plan management area allocation are adjacent to lands currently allocated as Management Area 8.22 – Ski-Based Resorts and within the existing SUP boundary. These lands would be managed as Management Area 8.22 – Ski-Based Resorts and would include specific standards and guidelines, SIO designation and ROS designation (refer to section C in this appendix for a description of management area direction).

Management Area 1.3 – Backcountry Recreation includes one guideline, “1. (GL) Do not construct new roads,” which would no longer apply, and Management Area 8.22 – Ski-Based Resorts standards and guidelines would apply to the 10 acres of the ARP that would be incorporated into Management Area 8.22 – Ski-Based Resorts. Alternative 2 would replace the one guideline in Management Area 1.3 – Backcountry Recreation that discourages the construction of new roads. Management Area 8.22 – Ski-Based Resorts allows for the construction of roads for ski area operations. Within the area currently allocated as Management Area 1.3 (10 acres), Alternative 3 does not propose the construction of roads; however, if conditions necessitate in the future, EMR could propose a road(s) within this area. This would require additional environmental review in accordance with NEPA. The ROS would change from *Semiprimitive Non-Motorized* to *Rural*. This change would reflect an experience that would be considered more developed in terms of infrastructure and interaction with people. In addition, the SIO would decrease in scenic integrity from *High* to *Low*.

Management Area 4.3 includes one guideline, “1. (GL) Restrict vegetation management operations during periods of high recreational use (weekends, holidays, high-use seasons, etc.) as needed, to maintain the

desired recreational setting or to reduce interference with the recreational activities.” This guideline would be replaced with Management Area 8.22 – Ski-Based Resorts standards and guidelines would apply to the approximately 0.5 acre of the ARP that would be incorporated into Management Area 8.22 – Ski-Based Resorts. The ROS would change from *Roaded Natural* to *Rural*. This change would reflect an experience that would be considered more developed in terms of infrastructure and interaction with people. In addition, the SIO would decrease in scenic integrity from *Moderate* to *Low*.

As per FSH 1909.12, the four criteria for determining significance of the proposed amendment are responded to directly.

**1. Timing. When the change in the Forest Plan would take place relative to the planning period and scheduled revisions of the plan.**

The ARP is currently not undertaking a formal Forest Plan revision process. Because the completion of the Forest Plan revision process is not imminent, and the last Forest Plan revision was approximately 16 years ago, these non-significant Forest Plan Amendments are being proposed at an appropriate time. In addition, guidance states that in most cases, the later the change, the less likely it is to be significant to the current forest plan.<sup>8</sup> The current Forest Plan was authorized in 1997; these amendments would help keep management within the plan consistent with current planning in this area. These changes would take place during this planning period.

**2. Location and Size. Location and size of the area affected compared to the size for the overall planning area.**

The ARP includes approximately 1.5 million acres of forests and grassland in north central Colorado. This proposed Forest Plan Amendment would pertain to the adjustment of EMR’s SUP boundary within NFS lands beyond the existing 524 acres. The amended land allocations would be contiguous with existing lands allocated as Management Area 8.22 – Ski-Based Resorts. The management area change would apply to approximately 22 acres. This Forest Plan Amendment does not apply to other lands across the ARP. Alternative 3 would increase the acreage of existing Management Area 8.22 – Ski-Based Resorts on the ARP from 16,752 acres to 16,774 acres, an increase of 0.1 percent.

Under Alternative 3, 10 acres of Management Area 1.3 – Backcountry Recreation would change to Management Area 8.22 – Ski-Based Resorts. Currently, there are 172,442 acres of Management Area 1.3 – Backcountry Recreation on the ARP, and Alternative 3 would result in 172,431 acres of Management Area 1.3 – Backcountry Recreation on the ARP; a reduction of 0.0006 percent. Backcountry recreation does occur within other management areas on the ARP.

---

<sup>8</sup> Ibid.

Under Alternative 3, 0.5 acre of Management Area 4.3 – Dispersed Recreation would change to Management Area 8.22 – Ski-Based Resorts. Currently, there are 143,741 acres of Management Area 4.3 – Dispersed Recreation on the ARP, and Alternative 3 would result in 143,740 acres of Management Area 4.3 – Dispersed Recreation; a reduction of 0.0003 percent.

**3. Goals, Objectives, and Outputs. How, or to what degree, the amendment would affect the long-term relationship between levels of goods and services projected by the Forest Plan.**

Development and utilization of the ARP within the EMR SUP was anticipated in the Forest Plan. In general the Boulder Creek Geographic Area is meant to be managed for year-round recreational use. An emphasis was placed on working and cooperating with the EMR to develop a sustainable vegetation management plan for EMR and to formalize access through the ski area for the Jenny Creek Trail.

Long-term goods and services within the changed management areas and adjusted SUP boundary would meet the goals, objectives, and outputs of Management Area 8.22 – Ski-Based Resorts in accordance with the Forest Plan. Due to the size and specificity of this amendment, this amendment would not alter the long-term relationship between levels of goods and services projected by the Forest Plan.

**4. Management Prescription. Whether the change would apply only to a specific situation, or to future situations across the planning area.**

These proposed Forest Plan Amendments are specific to 17 acres. These amendments would not apply to Management Area 8.22 – Ski-Based Resorts, Management Area 1.3 – Backcountry Recreation or Management Area 4.3 – Dispersed Recreation in their entirety across the ARP or any other current or future situations on the ARP.

For these reasons, these Alternative 3 Forest Plan Amendments are non-significant amendments to the Forest Plan.

Any future ski area projects within Management Area 8.22 – Ski-Based Resorts (at EMR or other developed winter sports permittees) will be evaluated within separate, project specific NEPA analysis for compliance with Forest Plan direction. The proposed Forest Plan Amendments and management area allocation change would take effect following issuance of a Record of Decision for this EIS. In addition, an amendment to EMR’s SUP would occur subsequent to the Record of Decision.

## C. FOREST PLAN MANAGEMENT AREA DIRECTION

### 1.3 BACKCOUNTRY RECREATION

*Theme:* Backcountry areas are managed to provide nonmotorized recreational opportunities in a natural appearing landscape.

#### **Desired Condition**

##### *Physical/Biological*

A variety of plant communities, structural stages, and associated wildlife occur in patterns maintained primarily through ecological processes. The variety and arrangement depends on the timing of natural disturbances (fire, insects and diseases, and storms) and prescribed fire. The amount and arrangement of successional stages varies greatly depending on the amount and timing of disturbances and how openings revegetate.

Openings vary in size and are generally the result of the natural disturbances described above. Openings may be utilized to provide scenic views and add to the diversity of the landscape. New human-caused changes to vegetation that may occur are limited in scale and are not visually evident. For short time periods in small areas, some vegetation manipulation may occur that is noticeable; however, it resembles natural patterns.

##### *Social*

Provide a variety of nonmotorized recreational opportunities. Unique nonmotorized hunting, fishing, and wildlife-viewing opportunities may exist in these areas that are away from major travelways where seclusion and cover areas exist. Other compatible activities may occur in the area.

Encounters between individuals or parties are most common on travelways. Seasonal restrictions for resource protection may occur. Fewer contacts and improved opportunities for solitude occur away from trails. Sounds from people may be common near travelways. Sounds from outside the area may be common near the area's edge. Farther away from travelways or the area's edges, sounds diminish into the background.

Use subtle on-site regulations and controls. Prohibit motorized travel, including over-snow use except as shown on the Winter Travel Strategy Map endorsed with this document. Limit directional, regulatory, and informational signs to those necessary to foster safe use and resource protection. Contacts with Forest Service personnel are generally initiated by visitors.

##### *Administrative*

Limit facilities to those necessary to protect resources, provide for safety, or to enhance recreational experiences. Existing improvements such as trails, bridges, fences, shelters, signs or water diversions

blend into the landscape where feasible or are removed if no longer needed. Existing primitive roads will be converted to trails or obliterated. New trails may be constructed to enhance recreational experiences, prevent damage to resources or provide access. Managed trails provide for a variety of use and challenge levels. Most routes are designed for a variety of uses and will loop, run point-to-point, or seek to link with other management areas or developed sites.

Acquire inholdings or adjacent lands as opportunities arise to maintain or improve backcountry nonmotorized recreational opportunities or to prevent development that would diminish experience levels on National Forest System (NFS) lands. Retain all NFS lands in the management area. Acquire rights-of-way where needed to meet resource goals and objectives and enhance recreational opportunities. Allow compatible special uses.

### **Standards and Guidelines**

1. (GL) Do not construct new roads.

## **4.3 DISPERSED RECREATION**

*Theme:* Dispersed recreation areas are managed to provide recreational opportunities in natural or nearly natural-appearing landscapes.

### **Desired Condition**

#### *Physical/Biological*

Maintain or improve biological communities to provide a pleasing appearance for visitors; complement the recreational values; and provide varied plant communities, structural stages, and associated wildlife. Emphasize the health and appearance of these communities to maintain their desirability for recreational use. Maintain insect and disease populations at endemic levels. Accomplish vegetation management through a combination of human manipulation and natural processes. Harvest units and areas affected by fire, insects, and disease may be evident in the landscape.

#### *Social*

This is an area where forest visitors can recreate in a relatively natural forest environment. These areas are characterized by relatively easy access and heavy use which may be motorized, nonmotorized, or both. Frequent contact between individuals or parties is acceptable and sounds from people and motorized equipment are common. Opportunities for solitude or isolation are limited.

Undeveloped areas appear to be relatively natural. Blend existing improvements such as improved roads, primitive roads, trails, bridges, fences, shelters, signs or water diversions into the landscape where feasible or remove them if no longer needed. Design new improvements to resemble natural patterns.

Onsite regimentation and controls are noticeable, but harmonize with the natural environment Provide simple information facilities. Directional, regulatory and informational signs are present and foster safe use, identify requirements for use of the area, and provide route information.

### ***Administrative***

Provide facilities to meet dispersed recreational needs; facilities may include hardened sites with fire rings and tables. Developed facilities, including campgrounds, picnic areas, and trailheads, may be provided to meet recreational demands within the area's resource capacity.

A wide spectrum of travelways exist from primary highways to primitive roads and trails that serve as recreational features themselves. Travelway densities may remain fairly constant. Open roads provide motorized recreational opportunities and restricted roads provide nonmotorized opportunities. Provide access to natural attractions, water features, and other areas that provide desired recreational opportunities.

Acquire inholdings and adjacent parcels to improve and maintain recreational opportunities or to provide access. Acquire lands on which development would diminish the recreational experience of NFS lands. Retain parcels with critical or unique resources or lands where development would be incompatible with achieving dispersed recreational experiences on the remaining NFS lands. Dispose of parcels where a dispersed recreational experience can no longer be provided because of development on private land. Acquire rights-of-way that are needed to meet resource goals and objectives. Allow compatible special uses.

### **Standards and Guidelines**

1. (GL) Restrict vegetation management operations during periods of high recreational use (weekends, holidays, high-use seasons, etc.) as needed, to maintain the desired recreational setting or to reduce interference with the recreational activities.

## **7.1 RESIDENTIAL-FOREST INTERMIX**

*Theme:* Areas characterized by an interface between residential private lands and National Forest System lands are managed to protect natural resources, provide compatible multiple uses, and maintain cooperative relationships between the landowners and other levels of governmental jurisdiction. Opportunities to consolidate landownership patterns are pursued.

### **Desired Condition**

#### ***Physical/Biological***

Provide a variety of plant communities, structural stages, and associated wildlife through vegetation manipulation and natural processes. Manage forested areas to attain a natural appearance and minimize the risks of catastrophic fires and epidemic levels of insects and diseases. Maintain natural openings,

meadows, and other plant communities to protect soil and water resources and key wildlife habitat areas. Maintain insect and disease populations at endemic levels where damage would only be evident in small patches across the landscape, if at all.

### *Social*

This is an area where developed residential use blends into relatively undeveloped natural environments. Dispersed recreation is not encouraged but access to existing areas of high use is provided. Visitors expect to encounter residential developments on intermingled private lands, and residents may encounter National Forest visitors and management activities. Consequently, recreational use of these areas may be limited to the extent necessary to reduce conflicts between landowners and visitors.

Undeveloped areas appear to be in a relatively natural state. Blend existing improvements such as improved roads, primitive roads, trails, bridges, fences, shelters, signs, recreational sites, or water diversions into the landscape where feasible or remove them if no longer needed. New improvements are designed to resemble natural patterns and to be less intrusive into the landscape.

### *Administrative*

Manage fire and hazardous fuels in close cooperation with state and county agencies, local fire protection districts and organized homeowners' groups. Aggressively suppress wildfires that threaten life and property. Actively pursue opportunities for land exchange and sales. Retain or acquire lands containing key or essential habitat, unique or critical ecosystems, important recreational values or important access routes to National Forest System lands. Dispose of or acquire parcels to consolidate landownership and to reduce need to authorize occupancy of National Forest System lands. Pursue rights-of-way needed for management purposes.

Manage the minimum road system needed to provide access for management activities, recreational use and fire protection. Coordinate trail systems with other local agencies. Attempt to link trails to other management areas, developed sites and other nearby trails. Locate new facilities (trailheads, parking areas, designated sites, developed sites, etc.) in areas to help minimize conflicts. Boundaries in the vicinity of management activities and along public access routes are identified, well marked and maintained over time. Permit compatible special uses on lands identified for retention. Do not approve land-use authorizations on National Forest System lands identified for disposal if that occupancy may affect disposal action. Bring existing land use authorizations into compliance on an opportunity basis.

## **8.22 SKI-BASED RESORTS (BOTH EXISTING AND POTENTIAL)**

*Theme:* Areas with ski-based resorts or potential for ski-based resorts are managed to provide for skiing and related recreational uses.

## **Desired Condition**

### *Physical/Biological*

Maintain or improve vegetation composition and structure to provide a pleasing appearance, maintain scenic views from the site and provide for sustainable vegetation cover. A variety of tree and associated plant species are present. Arrangement of vegetation and featured species complement the area's appearance, provide for user safety, and minimize maintenance costs.

Manage scenic resources so that the character is one of forested areas interspersed with openings of varying widths and shapes. Manage tree stands and islands to provide a variety of species and size classes, stability, longevity, esthetics, and wind firmness to sustain forest cover and complement recreational values. Ski operations that affect water, including snowmaking and other water-depleting activities, will be compatible with maintenance of healthy aquatic ecosystems.

### *Social*

Design new human modifications to vegetation to resemble natural patterns or patterns typical of the particular area. Other ecological changes may affect the appearance.

Encounters between individuals or parties are frequent during winter-use seasons and vary from infrequent to frequent during summer-use seasons. Sounds from people or motorized recreational activities are common and limit opportunities for solitude or isolation.

Recreational opportunities are primarily those at the developed level. The base area is often an urban setting. Views and vistas outside the area, but visible from within, may be featured. Wildlife-viewing opportunities may be available.

Evidence of past human activities or habitation due to mining, milling, or grazing may be present. Blend existing improvements such as improved roads, primitive roads, trails, bridges, fences, shelters, signs or water diversions into the landscape where feasible or remove them if no longer needed. Design new improvements to be minimally intrusive into the landscape.

### *Administrative*

Facilities provided on site vary from rustic to highly developed, depending on the individual site. Directional, regulatory, and informational signs are common to foster safe use, identify requirements for use of the area, and to provide route information. Personal contacts by Forest Service personnel are common and are generally for the purpose of providing information and administering permits.

Improve areas to restore the desired appearance. Improvements are owned by permittee. Master plans for special-use permits ensure that facilities harmonize and blend with the natural setting. Travelways

constructed and maintained under terms of the permit will meet Forest Service standards. Design ski runs to avoid snow scour and to favor snow deposition.

Assess land-adjustment strategies on a case-by-case basis. Allow only special uses that do not interfere with the permittee's business operations of the ski area.

### **Standards and Guidelines**

1. (ST) Withdraw the area from locatable mineral entry.
2. (GL) Retain vegetation for screening around structures where vegetation recovery will be slow.
3. (GL) Prohibit cutting trees or locating structures in areas that promote snow loading in avalanche starting zones.

## **D. RECREATION OPPORTUNITY SPECTRUM CLASSES**

Recreation Opportunity Spectrum (ROS) is a system for planning and managing recreational resources. ROS categorizes recreation opportunities into classes. Each class is defined in terms of the degree to which it satisfies certain recreational experience needs based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area and the relative density of recreation use. The classes are:

*Primitive* – Area is characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.

*Semiprimitive Non-motorized* – Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but would be subtle. Motorized recreation use is not permitted, but temporary primitive roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on nonmotorized recreational experience opportunities.

*Semiprimitive Motorized* – Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but would be subtle. Primitive roads and trails are designated for OHV use.

*Roaded Natural* – Area is characterized by predominantly natural-appearing environments with moderate evidence of the sights and sounds of people. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high, with evidence of other users prevalent.

Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and design of facilities.

*Roaded Modified* – Area is characterized by a mixture of natural appearing and substantially modified environments. The impacts of resource management activities such as timber harvest and prescribed fire are obvious and dominate portions of the area. There are opportunities to get away from others but with easy access providing a feeling of independence and freedom with little challenge and risk. Conventional motorized access is common and is incorporated into road design and maintenance.

*Rural* – Area is characterized by substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities.

*Urban* – Characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Renewable resource modification and utilization practices are often used to enhance specific recreational activities. Vegetative cover is often exotic and manicured. Sights and sounds of humans are predominant on the site. Large numbers of users can be expected both on the site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site.

# **Appendix C**

## **Federal, State, and Local Comment Letters on the Draft EIS**

---

## **APPENDIX C: FEDERAL, STATE, AND LOCAL AGENCY COMMENT LETTERS ON THE DRAFT EIS**

Included in this section are comment letters from federal, state, and local agencies received on the Draft EIS.





**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

1595 Wynkoop Street  
DENVER, CO 80202-1129  
Phone 800-227-8917  
<http://www.epa.gov/region08>

**APR 14 2014**

Ref: 8EPR-N

Sylvia G. Clark, District Ranger  
U.S. Forest Service  
Boulder Ranger District  
2140 Yarmouth Avenue  
Boulder, CO 80301

Re: Eldora Mountain Resort Ski Area Projects  
Draft Environmental Impact Statement  
CEQ # 20140046

Dear Ms. Clark:

The U.S. Environmental Protection Agency Region 8 has reviewed the U.S. Department of Agriculture Forest Service (USFS) Draft Environmental Impact Statement (EIS) for the proposed Eldora Mountain Resort (EMR) Ski Area projects. The USFS Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARP), Boulder Ranger District, has prepared a Draft EIS that intends to analyze and disclose the potential environmental effects of implementing proposed projects that are included in the 2011 EMR Master Plan. Our review was conducted in accordance with the EPA's responsibilities under section 102 of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act (CAA).

**Project Description and Background**

EMR is located in Boulder and Gilpin Counties in Colorado, near the town of Nederland, approximately 20 miles west of the city of Boulder and 45 miles northwest of Denver. EMR currently operates eight chairlifts and three surface lifts to provide access to its network of 49 ski trails totaling approximately 184 acres of developed trails and 152 acres of tree and gladed skiing areas.

EMR's proposal identifies two overall project purposes, which are to improve guest experience and skier safety as well as address forest health and vegetation management, and seven associated primary needs to be addressed in the Draft EIS analysis. These needs include:

- Improve the reliability of chairlift and terrain offerings;
- Address skier safety concerns during prevalent wind events;
- Provide additional intermediate to expert ability level terrain and a new, more natural terrain experience;
- Provide new and upgraded chairlift infrastructure to improve the quality of the alpine ski experience;
- Expand and improve on-mountain guest services;
- Maintain vegetation to improve forest health within the EMR boundaries in a manner that continues to be compatible with historic and future ski area uses; and
- Reduce the spread of noxious weeds.

In addition to the No Action Alternative (Alternative 1), two action alternatives are analyzed. A Preferred Alternative has not been identified in the Draft EIS. Alternative 2, the Proposed Action, includes fifteen new ski trails totaling approximately 58 acres; approximately 57 additional acres of new tree and gladed skiing areas; modifications to 43 acres of existing tree and gladed skiing areas; installation of two new chairlifts (Placer Express and Jolly Jug) and replacement of three existing lifts with two upgraded lifts; the expansion of snowmaking coverage to an additional 58 acres; construction of a new on-mountain guest facility and renovation of an existing lookout facility; and construction of additional parking on private lands. Management prescriptions from EMR's 2013 Vegetation Management Plan would be applied to the special use permit (SUP) area and adjacent private lands. The Proposed Action would require a Forest Plan amendment because it adjusts EMR's northern and southern SUP boundaries with a total increase of approximately 86 acres.

Alternative 3 includes several of the same components as Alternative 2, but does not include the Placer Express chairlift and terrain projects and the associated SUP boundary adjustment to Middle Boulder Creek at the north side of EMR. This alternative includes 10 new ski trails encompassing approximately 52 acres, approximately 63 acres of new tree and gladed skiing areas, and modifications to 135 acres of existing tree and gladed skiing areas. There would only be one new chairlift (Jolly Jug), differing in design from Alternative 2 in regard to slope length and vertical rise. The proposed snowmaking will result in approximately 52 acres of additional coverage. Finally, EMR's SUP boundary will be increased by approximately 18 acres on the southern side of the ski area, which would also require a Forest Plan amendment.

## **The EPA's Comments and Recommendations**

Our comments on the Draft EIS focus on avoiding impacts to air quality and aquatic resources, including wetlands and waters of the U.S. Our enclosed *Detailed Comments* include additional concerns identified with regard to the air quality analysis and potential impacts, as well as aquatic resources.

### ***1) Air Quality Impacts***

Upon review of the Draft EIS, we are providing the following comments and recommendations related to general conformity, project design criteria and best management practices (BMPs), and compliance with the National Ambient Air Quality Standards (NAAQS). In addition, please refer to our enclosed air quality analysis detailed comments.

#### **General Conformity**

The USFS portion of the proposed EMR expansion lies within the Metro-Denver/North Front Range (NFR) 8-hour ozone nonattainment area and the Metro-Denver PM<sub>10</sub> maintenance area. Therefore, general conformity would apply to a Federal action applicable to the proposed EMR expansion on USFS lands. We note that general conformity analysis or conformity determination (as appropriate) are not required to be completed concurrent with the NEPA process, but recommend that consideration be given for doing so for purposes of efficiency. A discussion of general conformity or its requirements is not included in the Draft EIS. We recommend that the Final EIS address general conformity and its requirements with the Colorado State Implementation Plan. Please refer to the enclosed detailed comments for more information. The EPA is available to discuss conformity options with you if that would be useful.

## Project Design Criteria and Best Management Practices

The EPA appreciates the preparation and disclosure of the traffic data and calculated emissions provided in the Draft EIS. We note that particular concern was expressed in the document (Draft EIS p. 3-46) regarding the intersection of the SH 119 and Eldora Road in Nederland. As there is occasionally considerable congestion at this intersection (Draft EIS, p. 3-52), we recommend the USFS consult with CDOT and Boulder County to understand potential increased congestion issues. Please refer to the enclosed detailed comments for further information.

The EMR is adjacent to the Indian Peaks Wilderness Area, a sensitive Class II area. In addition to the two BMPs noted in the Draft EIS for air quality impacts related to dust emissions (p. 2-36), the EPA recommends that additional BMPs be considered for inclusion for the construction phase of the projected expansion to assist in reducing ozone precursor emissions of nitrogen oxides (NO<sub>x</sub>) and volatile organic compound (VOC) during summertime construction. Specifically, the EPA recommends the following additional construction mitigation measures be considered for this project and included in the Final EIS:

- Prohibit unnecessary idling of construction equipment;
- Require use of low-sulfur fuel;
- Require heavy construction equipment to use the cleanest available engines (Non-road Tier 4) or be retrofitted with diesel particulate control technology.
- Use alternatives to diesel engines and/or diesel fuels such as: biodiesel, LNG or CNG;
- For any winter time construction, install engine pre-heater devices to eliminate unnecessary idling;
- Prohibit tampering with equipment to increase horsepower or to defeat emission control devices effectiveness; and
- Require construction vehicle engines to be properly tuned and maintained; and use construction vehicles and equipment with the minimum practical engine size for the intended job.

The Draft EIS outlines tree removal operations related to the proposed project and identifies that ski areas typically dispose slash by one or more of the following methods: pile burning, chipping, and/or lop and scatter (Draft EIS pp. 3-316, 3-317). It also identifies that pile burning is expected to be minimal due to local burn restrictions and air quality concerns (Draft EIS, p. 3-317). We understand from discussions with other Forests that pile burning can be covered by a forest-wide programmatic Burn Plan. We recommend the Final EIS include a discussion of the Burn Plan process and whether the ARP National Forests develop such plans for pile burns. In addition, we recommend the Final EIS clarify whether pile burns would be subject to the same process that is utilized for prescribed fire treatments as described in the *Interagency Prescribed Fire Planning and Implementation Procedures Guide* (November 2013). Lastly, we recommend the Final EIS include pile burning acreage and provide a qualitative discussion of short-term air quality impacts associated with the burning of these piles.

## NAAQS Compliance

The Draft EIS provides data on ambient air quality values from the CASTNET air monitoring data for years 2008 through 2011 (p. 3-44). The calculated 8-hour ozone NAAQS values are very close to the 8-hour ozone NAAQS of 75 ppb and a violation of that NAAQS is 76 ppb (*i.e.*, calculated design values of 74 ppb and 75 ppb). The EPA recommends that if additional data and calculated design values are available for 2012 and 2013, they be included in the Final EIS.

## ***2) Aquatic Resources including Wetlands***

The following comments and recommendations are related to water quality, aquatic resources, and waters of the U.S. including wetlands.

### Water Quality

The Draft EIS notes that there are no stream segments or lakes within the Study Watersheds included on the Colorado State 303(d) list of impaired waters. However, the mainstem of Middle Boulder Creek is listed under the Monitoring and Evaluation (M&E) list for Cadmium and Copper, and the South Boulder Creek and its tributaries from its headwaters to the outlet of Gross Reservoir are listed under M&E for aquatic life use. While the M&E list is not subject to EPA approval, this listing indicates there may be an issue with approaching limits or exceedances associated with these contaminants/indices. Therefore, further examination may be warranted to ensure that the project will not further exacerbate current water quality conditions.

Additionally, the Draft EIS discusses the State of Colorado's *Guidelines on Individual Sewage Disposal Systems (ISDS)* (2004 reference) in regard to the distance between wetlands or surface waters and the proposed sewage disposal system. The Draft EIS concludes that there will be no impact to the water quality of the Study Watersheds as a consequence of installation of the sewage disposal systems (p. 3-307). Based on the repeal of the ISDS Guidelines and recent adoption of a new replacement Water Quality Control Commission regulation (Regulation 43: On-Site Wastewater Treatment System Regulation, May 2013), the regulation regarding onsite wastewater systems has been significantly revised. We recommend that this section be updated if needed in the Final EIS to ensure that the conclusions are consistent with the new regulation.

### Aquatic Resources

The Draft EIS questions the genetic purity (i.e., trout native to the South Platte River drainage) of the greenback cutthroat trout that have recently been detected in Middle Boulder Creek, and identifies that it is likely these fish originated from native cutthroat trout stocked into the headwater lakes located in the Middle Boulder watershed (p. 3-154). Further, the genetic evidence suggests that genetically-pure greenback cutthroat trout may only be found in a single, small population in the Arkansas River basin (Bear Creek). The decision to drop the cutthroat trout present in the Middle Boulder Creek watershed from further consideration as a federally threatened species is based on applying best professional judgment; however in the absence of conducting genetic analyses, we recommend that relevant information and recommendations from the U.S. Fish and Wildlife Service Section 7 Consultation be included in the Final EIS in light of recent genetic discoveries regarding greenback cutthroat trout lineage.

Generally, we recommend that the Aquatics Associates, Inc., 2012 report be included in the appendices. There were various conclusions in the Draft EIS on stream health and aquatic resources that did not appear to incorporate relevant findings and supporting analyses found in this report. Disclosure of this additional information would benefit the public by better understanding the results of these analyses for these sections. The EPA is available for a broader discussion on this report and its findings if that would be useful.

### Waters of the U.S. including Wetlands

The EPA understands that the USFS partnered with the U.S. Army Corps of Engineers (Corps) for a Preliminary Jurisdictional Determination for wetlands and waters of the U.S. potentially affected by this project. The wetlands typically found in mountain environments represent highly valuable upper montane and lower subalpine wetland ecosystems performing a variety of functions and values. The Executive Order 11990 – Protection of Wetlands (May 24, 1977) requires federal agencies to avoid to the extent practicable, long- and short-term adverse impacts associated with the destruction or modification of wetlands.

Alternative 2 would directly/permanently impact 0.07 acre of wetland due to construction of the proposed bottom terminal of the Corona chairlift. Under the Clean Water Act (CWA), avoidance and minimization measures must be considered through the planning process. Despite the statement that these direct impacts will likely be mitigated by the USFS through purchasing compensatory wetland acreage from a wetland mitigation bank, it cannot be assumed that this impact will be reviewed under a CWA 404 permit issued by the Corps as it may not be a regulated water of the U.S. under the current federal guidance. Therefore, the USFS's responsibility to avoid, minimize and mitigate these wetland impacts may be exclusively driven by EO 11990. We recommend the Final EIS identify potential mitigation sites as close to the impacted area as possible, preferably within the effected sub-watershed.

Alternative 2 also proposes forest overstory removal that will modify and indirectly impact 1.41 acres of forested wetlands, including 0.11 acre of the Corona fen. Overstory removal may change the type and function of affected wetlands, including hydrology, water quality and habitat functions. Currently the Draft EIS does not identify mitigation proposed for the wetland habitat values lost by removing forested overstory with the proposed expansion under Alternative 2. The EPA recommends that the USFS observe EO 11990 and require that the EMR's proposed action "include all practicable actions to minimize harm to wetlands" by requiring compensation for these lost wetland functions and values. Mitigation for forested wetland overstory may include riparian vegetation plantings of similar species and similar numbers along Boulder Creek or its tributaries within the upper basin.

Additionally, due to the slow rate of accumulation of peat in fens, these ecosystems are generally considered to be irreplaceable (Draft EIS, p. 3-295). Because of the irreplaceable nature and rarity of montane fen wetland ecosystems, compensation for these wetland impacts is extremely difficult. The EPA therefore strongly recommends avoidance of these highly valued resources.

In response to public concerns, Alternative 3 by design largely avoids and minimizes adverse impacts to special aquatic sites, including wetlands and fens. The 0.07 acre impact to wetlands for the Corona chairlift remains, with the indirect impact reduced to 0.51 acre from removal of forested wetland overstory. This indirect impact does not appear to affect the Corona fen. Therefore the proposed project expansion under Alternative 3 is more protective in accordance with EO 11990 wetlands management direction by reducing adverse impacts to wetlands function and values.

#### Other Considerations

We recommend that the USFS expand upon the discussion of EMR's proposal to improve its snowmaking practices from an efficiency standpoint (Draft EIS, p. 3-304) to further support the statement that the average snowmaking water usage would not increase under the Proposed Action. We recommend that additional details, such as timing of implementation and operational design, be included in the Final EIS to address any concerns related to water quality (e.g., impacts to streams, soils, vegetation or wetlands on or below the ski area) or quantity (e.g., timing and magnitude of withdrawals that may impact critical instream flows, aquatic habitat, etc.) associated with additional snowmaking

operations and/or increased withdrawals. Additionally, we recommend that a map with both current snowmaking coverage and proposed new coverage be included in the EIS.

### **The EPA's Rating**

Based on our review, the EPA is rating the two action alternatives in the Draft EIS as "Environmental Concerns – Insufficient Information" (EC-2). The "EC" rating means that the EPA's review has identified potential impacts that should be avoided in order to fully protect the environment. The "2" rating means that the Draft EIS does not contain sufficient information for the EPA to fully assess environmental impacts. A description of the EPA's rating system can be found at: <http://www.epa.gov/compliance/nepa/comments/ratings.html>.

We appreciate the opportunity to participate in the review of this project, and we are committed to working with you in the coming months. If we may provide further explanation of our comments during this stage of your planning process, please contact me at 303-312-6704, or your staff may contact Melanie Wasco, Lead NEPA Reviewer, at 303-312-6540.

Sincerely,



for

Philip S. Strobel  
Acting Director  
NEPA Compliance and Review Program  
Office of Ecosystems Protection and Remediation

Enclosure



# United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
Denver Federal Center, Building 67, Room 118  
Post Office Box 25007 (D-108)  
Denver, Colorado 80225-0007



April 7, 2014

9043.1  
ER 14/113

Glenn Casamassa, Forest Supervisor  
Arapaho and Roosevelt National Forest  
and Pawnee National Grassland  
2150 Centre Avenue, Building E  
Fort Collins, CO 80526

Dear Mr. Casamassa:

The U.S. Department of the Interior has reviewed the Draft Environmental Impact Statement for the Eldora Mountain Resort Ski Area Projects, Boulder and Gilpin Counties, CO and has no comments on the document. The U.S. Fish and Wildlife Service advises that their concerns will be addressed through the Section 7 consultation process.

Sincerely,

Robert F. Stewart  
Regional Environmental Officer

cc: Paul Alford, Team Leader



## COLORADO PARKS & WILDLIFE

Area Two • 4207 West County Road 16E • Loveland, Colorado 80537  
Phone 970-472-4460 • FAX 970-472-4468  
cpw.state.co.us

April 13, 2014

Paul Alford  
Project Team Leader  
Boulder Ranger District  
2140 Yarmouth Avenue  
Boulder, CO 80301

RE: Eldora EIS projects (DEIS comments).

Dear Mr. Alford:

Thank you for the opportunity to comment during the DEIS period for the proposed expansion of the Eldora Mountain Resort Ski Area (EMR). We appreciate the opportunity to review and comment on projects that may have impacts on wildlife resources and associated recreational opportunity.

We realize the many functions that United States Forest Service lands provide including important recreational opportunity close to the Front Range. We also know the valuable role that EMR plays in the community including bolstering the local economy and providing tremendous winter recreation for locals and visitors alike. To remain viable in the highly competitive world of skiing it is essential for EMR to update infrastructure to meet the expectations of their customers. Also from a regional perspective EMR provides a worthy alternative for ski enthusiasts not wishing to travel the I-70 corridor, and therefore helps reduce strain on regional transportation.

At the same time large infrastructure expansion on portions of heavily used forest service lands especially along significant drainages, poses the risk of straining aquatic systems and terrestrial wildlife that share these areas with humans. Therefore it is incumbent on all of us when seeking to expand our use of forest service lands to do our best to anticipate and if possible avoid actions that adversely impact habitat, and fish and wildlife that depend on it.

In the expansion plan DEIS presented option 1, the no build option, has the least potential for adversely impacting natural resources. However, it does not allow for the expansion needed by EMR to accomplish necessary goals. If growth of EMR is necessary Colorado Parks and Wildlife (CPW) considers option 3, expansion to the south toward Jenny Creek, to be the least impactful and therefore preferred alternative for expansion from a fishery/wildlife resource perspective. Because of existing heavy human use along Middle Boulder Creek (MBR) in the vicinity of the Town of Eldora west to the boundary of the

### STATE OF COLORADO

John W. Hickenlooper, Governor • Mike King, Executive Director, Department of Natural Resources  
Bob D. Broscheid, Director, Colorado Parks and Wildlife  
Parks and Wildlife Commission: Robert W. Bray • Chris Castilian, Secretary • Jeanne Horne  
Bill Kane, Chair • Gaspar Perricone • James Pribyl • John Singletary  
Mark Smith, Vice-Chair • James Vigil • Dean Wingfield • Michelle Zimmerman  
Ex Officio Members: Mike King and John Salazar

Indian Peaks Wilderness we are concerned about the impacts to this valley if option 2, installation of the Placer lift and expansion of the area boundary down to MBC, were to occur. These impacts could be expected during construction and throughout the useful life of the ski area, and we believe they would likely occur in all seasons.

---

CPW supports specific aspects of the expansion and proposed projects detailed in option 2 and/or 3 at EMR as they will likely improve habitat quality for many wildlife species. As mentioned in our previous comments during the scoping process there are several components of the expansion and proposed projects that may benefit wildlife that utilize EMR during different times of the year. The proposed development of traditional trails will enhance forest edge and openings. The creation of edge and opening will improve the diversity and productivity of forage plants used by multiple species including dusky grouse, mule deer, elk, moose, and black bear to name a few, by increasing available biomass of forbs, grasses, and shrubs. Many other small mammals and avian species will certainly benefit from the creation of additional edge and forest openings. Interspersion of additional openings within dense coniferous lodgepole woods will improve availability of roosting/resting habitat in close proximity to quality forage.

The proposed glade terrain projects should also improve the productivity of the forest understory for a variety of mammals and avian species. A more open forest will allow understory plant species to thrive in the environment much similar to what is observed after a forest is thinned. The traditional trails, glades, and historical forest cover will create a mosaic effect which will add needed diversity in a fairly even aged forest stand. However, extreme winds in this area may cause excessive scouring of snow, resulting in loss of moisture available to plants, in areas opened excessively by forest thinning. Therefore, careful consideration should be given to design of newly constructed and improved trails and glades to insure that snow retention is not decreased by wind scour due to thinning projects.

Our primary concern regarding the expansion of EMR is the extension of the special use permit (SUP) boundary to and along the south side of MBC and associated riparian habitat and CO Highway 130 (Hessie Road). This expansion of the SUP boundary and associated ski area projects are all summarized and contained in the DEIS proposed alternative 2. It should be noted that if implemented impacts to this site will not be seasonal and limited to winter, but will likely occur throughout the year. This is important in that, topography at the location along MBC results in a natural corridor which funnels wildlife through the drainage. There is also a unique, well functioning riparian complex consisting of beaver ponds, wetlands, and creek which has many benefits to wildlife resources and hydrologic processes. Throughout the year Hessie Road is a primary access point to the Indian Peaks Wilderness. Currently, due to MBC and marshy conditions along the creek human activities are restricted to Hessie Road until recreationists (by foot or vehicle) reach access points farther west into the Indian Peaks Wilderness via established trails. It would be fair to say that this is the most

congested roadway for recreationists accessing the Indian Peaks Wilderness. Because of the high volume of recreational use along the road and the natural barrier afforded by the creek, riparian corridor and mature forest stand to the south, wildlife use tends to concentrate to the south side of MBC. Currently there are no formal trails or access points along the south side of the creek. The development of several projects outlined in alternative 2 (bridge crossing MBC, Placer lift with the lower lift tower positioned immediately south of the riparian zone, traditional trails, and collector trail) adjacent to and south of MBC could directly and indirectly adversely impact wildlife resources using the area south of the creek negatively impacting this wildlife movement corridor.

- The proposed bridge across MBC to link Hessie Road and EMR could become a new access point for recreationists attempting to avoid Hessie Road during high volume use times. Even with the bridge being gated and signed it could create an access issue that will be very difficult to enforce. The DEIS provides an illustration of the proposed gate along the bridge which appears to be a simple arm that crosses the north side of the bridge approximately three feet from the ground. This will be easily circumvented by recreationists. Will there be personnel posted at this crossing during spring, summer, and fall to prevent illegal access when EMR is not in operation?
- The proposed collector trail that runs parallel to MBC would in effect become a trail that could be used by recreationists attempting to access the Indian Peaks Wilderness along the south side of MBC. If the proposed SUP boundary extension were expanded again in the future to the west (as described in "phase 2" of the 2011 Eldora Master Plan, but not mentioned in the DEIS), EMR could expand the collector trail very close to the wilderness boundary. From a recreational perspective this new trail would give recreationists a preferred alternative to walking up the congested Hessie Road to access points leading to the Wilderness boundary.
- The location of the proposed Placer lift while under operation could inhibit wildlife using the corridor. The construction and location of the Placer lift could also result in erosion issues directly impacting MBC. Thinning on the slope immediately above the creek may increase runoff and siltation to the wetlands along MBC adversely impacting fish and amphibians.

The previous issues only address non ski resort related recreation adjacent to the ski area. At this time commercial summer recreation does not exist at EMR. If future commercial summer recreation were allowed it would have additional impacts on wildlife resources using the south side of MBC. Year around recreational use on both sides of the corridor coupled with increased year around use on the expanded SUP area would most likely severely limit wildlife use along both sides of MBC.

Alternative 2 includes construction activity and forest thinning on the steep slopes on the south side of MBC which may adversely impact the aquatic and riparian systems along MBC adjacent to the proposed expansion. The proposed collector trail, snowmaking, traditional trails, and glades could result in increased surface run off and erosion. This could have potential negative impacts on the riparian corridor. Erosion could result in input of fine sediment to the stream channel, and may cause local sedimentation issues and increased turbidity, negatively affecting aquatic insect habitat, trout spawning habitat and larval fish cover. MBC does not contain species of special concern and is managed as a wild salmonid stream, inhabited primarily by brook and brown trout. Increased stream turbidity that may result from the proposed expansion may negatively impact aquatic invertebrates, larval fish and adult fish, and may be noticeable to recreationists and downstream neighbors. Erosion resulting from the proposed northern expansion could be detrimental to the wild trout fishery in MBC, the overall health of the riparian ecosystem and the recreational experience for anglers and others.

The DEIS describes potential noise pollution related issues regarding EMR operations (snow making, lift operations, motorized equipment and vehicles). However, these issues are only related to impacts to the Town of Eldora and human activity adjacent to EMR. There is no description or analysis of how increased noise pollution will affect wildlife that use the MBC corridor and adjacent areas during fall and winter EMR operations. Many wildlife species including terrestrial and avian fauna do not respond well to noise pollution. This could potentially further displace wildlife from their habitats and migration corridors. MBC drainage in this vicinity is designated as an elk summer concentration area in the CPW Species Activity Mapping data base. Elk begin migrating east from the MBC watershed in mid to late October when snow begins to accumulate at higher elevations and snowmaking operations begin at EMR. The primary elk movement corridors originate from the upper reaches of the MBC watershed and Chittenden Mountain and progress east along Mineral Mountain and east along the slopes south of MBC and along the MBC corridor. This could potentially interfere with or eliminate a migration corridor due to the sensitivity of elk to artificial noise and human activity, not to mention other new construction activities related to alternative 2 that could potentially displace elk for many years.

The willow carr along MBC is an important habitat component for moose and this corridor is a primary movement area for moose migrating east and west during different times of the year. In the CPW Species Activity Mapping data base this stretch of MBC is designated a moose priority area, concentration area and summer range. Increased noise pollution and human activity along the south side of MBC could severely impact moose migration patterns. Additional human use in the area may also concentrate moose and people to the extent that it creates safety issues similar to the moose attack last summer in the Peaceful Valley area of the Boulder Ranger district. The DEIS mentions that MBC adjacent to the proposed expansion area represents a small portion of overall range for moose. This statement is true in the context of overall range, but is not accurate in

relation to primary movement corridors, and quality forage areas typically associated with riparian areas similar to MBC. Willow carrs in the MBC watershed and adjacent areas are limited in overall size and availability and are therefore important components of moose productivity and health in this particular area.

Canada Lynx are mentioned throughout the DEIS and considerable effort has been made by the Forest Service to identify key habitat features and areas located in and around EMR that are associated with Canada Lynx. There are habitat components within EMR and inside the proposed expansion that can provide quality habitat for this extremely elusive and rare animal. As stated in the DEIS “alternative 2 warrants a may affect, likely to adversely affect determination for Canada Lynx.” If the lynx population in Colorado continues to increase it may be expected that their range and occupancy will continue to expand in the northern Front Range and therefore habitat associated with lynx will be of great importance.

Old growth and late successional forest types provide habitat for a variety of species and should be left intact to the extent that they can still provide the ecological services required by wildlife that inhabit these areas. Such areas do not lend themselves to thinning or other treatments that open the forest in a manner conducive to maintain or improve habitat quality. Alternative 2 would not be consistent with guideline 120 because “new and conventional trails would not maintain or increase habitat effectiveness within ARP-designated old growth development area or ARP-designated old growth inventory.” Specifically; alternative 2 would significantly impact high elevation old growth development habitat south of MBC, which would adversely affect wildlife associated with these forest stands.

Currently effective habitat would be fragmented and impaired in the geographic area included in alternative 2. New development including ski trails and lift corridors would further degrade the habitat effectiveness in this area. In addition to the DEIS the 2011 Eldora Master Plan indicates potential future expansion including moose glades and the moose glades lift which potentially alters effective habitat even further. Alternative 2 does not seem consistent with guidelines 107 and 108.

- GL 107: “avoid disconnecting or severing with new open roads and trails. Favor seasonal use during non-critical times for wildlife when this cannot be avoided.”
- GL 108: “When developing new open roads and trails, do not reduce contiguous areas of effective habitat to less than 250 acres or further reduce effective habitat of 20 to 250 acres in size, except where access is required by law.”

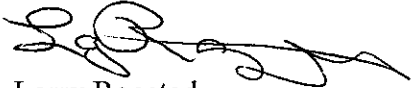
The DEIS states that “the additional negative effects of ski area development on effective habitat under both alternatives would be less recognized outside the ski season when most wildlife are resident and most human activity is absent.” The potential recreational access issues on the south side of MBC outside the ski season have not been addressed in

the DEIS. Again, there is a likelihood that recreationists will use the bridge crossing over MBC to access the forest and Indian Peaks Wilderness further to the west, potentially increasing use and social trails thereby impacting wildlife in areas where human activity is supposed to be absent.

Again, our primary concern is the expansion of EMR north of the current SUP boundary near MBC. There are numerous potential impacts to wildlife species and their associated habitats in the proposed EMR expansion in alternative 2. There are many potential positive impacts to wildlife resources and habitat in other areas where EMR projects and expansion is proposed. We understand the benefits outdoor recreation has on the economy and for outdoor recreationists, but at the same time we strive to find a balance by protecting our limited natural resources so that everyone may benefit from them. To this end option 3 offers the least potential for deleterious impacts on habitat, fish and wildlife if expansion of EMR is warranted. Option 1 provides the assurance of minimal additional impacts to habitat fish and wildlife since there would be no change in current operational levels at EMR if this option were selected.

We look forward to working collaboratively with your agency with the ultimate goal of improving our public land for wildlife and people. To this end we would appreciate the opportunity to participate in all phases of the review as the project moves forward. Please contact District Wildlife Manager, Kris Middledorf, at 303-656-1573 or me at 970-472-4461 if we may be of further service.

Sincerely,



Larry Rogstad  
Area Wildlife Manager  
Colorado Parks and Wildlife

CC: Sylvia Clark, District Ranger USFS, Bev Baker Biologist USFS, S. Yamashita, T. Kroening, M. Taylor, K. Middledorf, B. Kraft, K. Cannon



## Board of County Commissioners

March 24, 2014

Glenn Casamassa, Forest Supervisor  
Arapaho and Roosevelt National Forests and  
Pawnee National Grassland  
2150 Centre Ave., Bldg. E  
Fort Collins, CO 80526

Copy via email to: [gcasamassa@fs.fed.us](mailto:gcasamassa@fs.fed.us)

Dear Mr. Casamassa:

Boulder County has begun a review of the Draft EIS for the Eldora Mountain Resort Ski Area Projects released on February 20, 2014. At this time, the county would like to request an extension of time to provide comment on the Draft EIS. The county is requesting that you extend the deadline for the acceptance of comments for an additional 45 days. This would extend the deadline to Thursday, May 29, 2014.

The extent and intensity of impacts from the September 2013 floods have placed unprecedented and competing demands on staff's time, especially given the immediate need to address certain flood recovery work ahead of spring runoff in the interest of public safety. Given the potential scope and extent of the ski area's proposed projects, and the level of public interest generated by the proposal, it is our desire to provide a thorough and thoughtful response to this lengthy document that analyzes potential effects to lands within the county, as well as to our county's citizens. As such, we appreciate the additional time to prepare our comments given the competing and sizable demands on our staff resources.

Please let us know, as soon as possible, if you will grant an extension and the new deadline for submission of comments. The county appreciates the commitment the US Forest Service has shown in the stewardship of the forest in Boulder County, and we look forward to continuing to work together to that end. You can reach me at [Mkrezek@bouldercounty.org](mailto:Mkrezek@bouldercounty.org) or at 303-441-3561.

Thank you for your time and consideration,

Michelle Krezek  
Commissioners' Deputy

Cc: Sylvia Clark, Boulder Ranger District ([sgclark@fs.fed.us](mailto:sgclark@fs.fed.us))  
Paul Alford, Project Team Leader ([pwalford@fs.fed.us](mailto:pwalford@fs.fed.us))  
Travis Beck, Eldora EIS NEPA Contractor ([info@EldoraEIS.com](mailto:info@EldoraEIS.com))

Cindy Domenico County Commissioner

Deb Gardner County Commissioner

Elise Jones County Commissioner

Boulder County Courthouse • 1325 Pearl Street • Boulder, Colorado 80302 • Tel: 303.441.3500 • Fax: 303.441.4525  
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org) • [commissioners@bouldercounty.org](mailto:commissioners@bouldercounty.org)



## Board of County Commissioners

April 14, 2014

Eldora EIS Projects  
c/o Paul Alford, Team Leader  
Boulder Ranger District  
2140 Yarmouth Avenue  
Boulder, CO 80301  
[info@EldoraEIS.com](mailto:info@EldoraEIS.com)  
*Via U.S. mail and e-mail or e-filing*

Re: Eldora Mountain Resort Ski Area Projects Draft Environmental Impact Statement

Dear Mr. Alford:

Thank you for the chance to review the Eldora Mountain Resort Ski Area Projects Draft Environmental Impact Statement ("DEIS"). We respectfully submit the following comments.

### **Preliminary Matters**

As we mentioned in our Scoping Comments filed in August 2012, our comments during this NEPA process are not related to and are outside the scope of any forthcoming Boulder County land use review process that the Ski Area will be required to undergo including, without limitation, County approval of any substantial modifications to the Ski Area's special use permit under the County's Land Use Code. The Ski Area has not filed any applications with the County at this time. The purpose of NEPA is to generate information that leads to a better decision on whether projects like this should be federally permitted. Our intent in submitting these comments is to help the USFS reach the most informed decision it can.

Due to the tight timeline for submitting these comments as well as the competing demands on our time as we prepare for the uncertain impacts of spring runoff in the wake of the September 2013 floods, we were unable to schedule a public hearing to get our residents' input on the DEIS prior to submission of these comments. However, we do plan to take public comment at 4pm on Thursday, April 17<sup>th</sup>. We will forward to you any additional comments we have as a result of that hearing as soon as we can thereafter.

This letter incorporates by reference all of the past comments submitted to the Forest Service by Boulder County during the Scoping process. We reserve the right to raise additional issues later in the NEPA process.

**Cindy Domenico** County Commissioner

**Deb Gardner** County Commissioner

**Elise Jones** County Commissioner

Boulder County Courthouse • 1325 Pearl Street • Boulder, Colorado 80302 • Tel: 303.441.3500 • Fax: 303.441.4525

Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org) • [commissioners@bouldercounty.org](mailto:commissioners@bouldercounty.org)

## **Substantive Comments**

### **1. Purpose and Need; Lack of Updated Forest Plan.**

- a. The DEIS does not adequately justify the purpose and need for the expansion. It appears the Forest Service is assuming that some expansion is necessary based on the Ski Area's 2011 Master Plan, as the Purpose and Need statement is derived from the Master Plan. Yet it's unclear how much analysis, either public or internal, was required for the USFS to administratively "accept" the Master Plan. This is the tail wagging the dog. The analysis should begin with a comprehensive update to the Forest Plan so that the overall impacts of expansion on this subarea and the Forest as a whole can be assessed, using more data, rather than the Forest Plan being amended by virtue of a Final EIS approving an expansion driven only by the Ski Area's business development needs.
- b. In addition, not all of the land in this area is addressed in the 1997 Forest Plan. Part of the Special Use Permit boundary adjustment to the north toward Middle Boulder Creek was not included in the Forest Plan, presumably because the USFS acquired it after its adoption. This is another reason to comprehensively update the Forest Plan first.
- c. A Forest Plan amendment process could also best determine the management prescription for the recently acquired Toll property in the Hessie area. For portions of it to be subsumed by the expansion of the ski area boundary without a fuller consideration of its diverse and unique values in a wider planning effort seems out of sequence – particularly when the Forest Plan is at the end of its planning horizon of 20 years.

### **2. Rationale for Alternatives Analyzed.** The DEIS does not adequately explain why the alternatives chosen for analysis were the most appropriate ones. Before authorizing the irreversible and irretrievable commitment of resources to a project that will significantly impact the Middle Boulder Creek drainage and/or the Jenny Creek area, both of which are outside the current USFS Special Use permit boundary, the Forest Service must conduct a more thorough and accurate analysis for public review and comment. Specifically, the Final EIS should analyze at least one additional Alternative: one which would allow for improvements at the Ski Area but only within the existing USFS Special Use Permit boundary (an In-Fill Alternative).

### **3. Boulder County Comprehensive Plan.**

- a. The land use vision for Boulder County is expressed by the Boulder County Comprehensive Plan.<sup>1</sup> This document was first adopted more than 35 years ago. Since that time, it has been the subject of only occasional updates and has largely stood the test of time as an expression of the values of the county as to the judicious use of lands in the unincorporated area, with a

---

<sup>1</sup> The Boulder County Comprehensive Plan is available at:  
<http://www.bouldercounty.org/property/build/pages/bccp.aspx>.

view to preserving their uniquely rural qualities along with their scenic, environmental, and cultural resources. Lands being analyzed by the DEIS are subject to several of the designations in the Comprehensive Plan. These designations highlight their long-standing significance as important resources in the county.

- b. In particular, lands subject to the expansion considered under Alternative 2 in the Middle Boulder Creek area are located within the Indian Peaks Environmental Conservation Area. The county discourages human development in these areas in favor of preserving habitat effectiveness and connectivity at a landscape scale. Middle Boulder Creek is designated “Open Corridor-Streamside,” a designation intended to preserve waterways and riparian resources from the potential impacts of development. And Fourth of July Road is designated “Open Corridor – Roadside,” a designation intended to protect scenic corridors along highways and mountain road systems.
  - c. Further, the 2013 update of Environmental Resources Element of the Comprehensive Plan<sup>2</sup> also identifies Significant Natural Communities in the area of the proposed new lift terminal, Riparian and Wetland Resources associated with the creek, and Critical Wildlife Habitats (“CWH”) associated with Lost Lake, Peterson Lake, and Lake Eldora, as well as other CWH in the immediate area. On-going studies have demonstrated that this corridor is a highly functioning movement corridor for large mammals, particularly elk and moose, especially as they transition seasonally between higher and lower ground. Expansion into this area would interrupt this effective habitat in both the short term with construction and in the long term with the foreseeable increased incursion from dispersed recreation.
  - d. In addition, the Indian Peaks Wilderness is designated as a Natural Landmark, a landscape feature “designated solely for its visual and scenic prominence that distinguishes a specific locality in Boulder County.” The values associated with these designations are at risk with the development proposed under Alternative 2.
4. **Eldora Environmental Preservation Plan.** The county has incorporated the Eldora Environmental Preservation Plan (“EEPP”) into the Comprehensive Plan as a means of ensuring that the values and desires of the Eldora community are given standing in the decision-making process. We note the following language concerning Ski Area expansion in the EEPP: “Eldora Civic Association should work towards limiting the eventual size and operations of the ski area. There should be no expansion of the ski area outside their current permit boundary and no expansion below the existing Corona and Indian Peaks pods. Operations at the Ski Area should be monitored along with the documentation of adverse impacts and

---

<sup>2</sup> The 2013 update of the Environmental Resources Element of the Comprehensive Plan is available at <http://www.bouldercounty.org/property/build/pages/bccpupdate.aspx>.

non-compliance with the terms and conditions of the Boulder County special use permit and the Forest Service permit. Goals include:

- a. Protection of all threatened, endangered and sensitive species, species of concern, wetlands, riparian areas, watershed and stream quality, and old-growth forests.
- b. No use of water by the ski area from Middle Boulder Creek above the community of Eldora and strict enforcement of minimum stream flows on Middle Boulder Creek in the winter.
- c. Reduce existing noise impacts from snowmaking and grooming on the community of Eldora.
- d. No access for any activities associated with the ski area from the Fourth of July road or Hessie.
- e. No summer use of the backside (north slope of Bryan Mountain) in order to protect elk and other wildlife.
- f. Acquisition of buffers and critical habitat between the Ski Area and the community of Eldora.
- g. Monitor the quality of effluent from the ski area's wastewater treatment plant by working with State of Colorado and Boulder County water quality divisions.
- h. There should be no net loss of wetlands at the ski area and mitigation for the 32 acres lost since its creation. Any mitigation should occur on or in close proximity to the ski area.
- i. There should be no night skiing on the backside of the ski area.
- j. Boulder County's current limit on the ski area of 5,000 alpine tickets per day should remain and be enforced."

**5. Impacts on the Middle Boulder Creek drainage.**

- a. Given the significance of this area for its scenic values, its wildlife values, and its water resource values, in addition to its function as a wilderness portal, as exemplified by the land use designations described in the Comprehensive Plan and the Goals of the EEPP, the county is especially concerned about impacts on the Middle Boulder Creek drainage as contemplated under Alternative 2. These concerns will be magnified if the Ski Area builds out per its administratively accepted Master Plan from 2011.
- b. For many years, the county has sought to protect this area in a variety of ways – from the Comprehensive Plan designations that are intended to protect important viewsheds and natural resources to the adoption of the EEPP. The county has demonstrated the significance of these designations and policies in this area through our actions. These include the acquisition and protection of 697 acres of open space through purchase of fee and

conservation easement interests, as well as careful road, parking, and trail access planning in collaboration with users, local residents, and USFS. From our perspective, the DEIS places insufficient weight on the cumulative impacts to wildlife caused by increased habitat disturbance and decreased habitat effectiveness in this area, and insufficient weight on the additional impacts to plant species and communities of special concern to the county, such as wetland and riparian species. Nor are impacts on scenic viewsheds from the wilderness gateway of the Fourth of July corridor and Hessie area adequately considered. These considerations were given particular weight in the implementation of the parking and shuttle system implemented in the Hessie area in 2012.

- c. The Final EIS should include more baseline information on existing use in the Middle Boulder Creek valley – information that is paramount to analyzing impacts of a Ski Area expansion. Such basic data should include at a minimum:
  - i. How many vehicles and dispersed recreationists use the Fourth of July Road?
  - ii. How many hikers use the trails out of Hessie?
  - iii. How many use the trails at the Fourth of July trailhead?
  - iv. What type of experience are these recreationists seeking? How might an expanded Ski Area impact the recreational experiences of remoteness, primitiveness, and solitude?
- d. The impact analysis to scenic resources is inadequate. Four viewpoints along County Road 130 have been arbitrarily selected for viewshed analysis, one of which includes a large screening spruce tree in the immediate foreground. More fundamentally, the analysis cannot conclude that by expanding Ski Area's Special Use Area, all scenic impacts subsequently are insignificant based on the now-"low" Scenic Integrity Objectives. If there was no ski area at all, would there be no scenic impacts from a new ski area because the "new" SIO's allow altered landscapes? It is the change from the current, existing conditions that is being analyzed, not the future conditions. How many Middle Boulder Creek recreationists think scenery is unimportant or that an altered landscape is acceptable? In addition, the analysis of ROS impacts resulting from the Forest Plan Amendment claims that only the 42 acres being changed to Management Area 8.22 are being affected. New lifts and ski runs will be readily visible from vast areas of the National Forest, where, presumably, recreationists also value the scenery and "the solitude of the current recreational experience."
- e. The bridge over Middle Boulder Creek is to be used for construction, on-going maintenance, and emergency access (p. 3-22). Does this mean that bridge would never be used by lift attendants or by daily/weekly/monthly

inspectors or mechanics, or does the latter group fall under “on-going maintenance?” Does this mean that injured skiers (emergencies) will be regularly evacuated across this bridge and through the Eldora townsite? If so, how often do medical evacuations currently occur at the Ski Area?

- f. P. 2-47 shows that Alternative 2 would add 3212 linear feet of access road. Where are these roads?

- 6. **Cumulative Impacts of Full Build-out of the Ski Area’s Master Plan.** The DEIS should address the cumulative impacts of full build-out of the Ski Area’s Master Plan, not just the impacts from this first phase. Cumulative impacts are the result of the incremental effects of any action when added to other past, present, and reasonably foreseeable future actions. The Ski Area’s Master Plan timeframe is five to ten years and is the basis for the Purpose and Need in the DEIS – full build-out is reasonably foreseeable.
- 7. **Impacts to the Jenny Creek area.** While the actions proposed under Alternative 3 are located within Gilpin County, we reiterate our concern about the need to create impacts beyond the existing Special Use Permit boundary. As such, an In-fill Alternative should be given equal treatment in the Final EIS. Natural resource values such as habitat effectiveness, watershed protection, wetlands, and wilderness preservation stretch beyond political boundaries. Equally so, the area affords unique recreational opportunities residents of Boulder County enjoy having access to. Impacts to these unique values should be given due consideration in this process at a project scale (direct impacts) as well as at a landscape scale (cumulative impacts).
- 8. **Impacts of Increased Summer Recreation.**
  - a. The Final EIS should address the impacts of increased summer recreation associated with each Alternative, beyond and within the Ski Area boundaries, extending to other popular areas nearby such as West Magnolia, Hessie, and Jenny Creek. What activities currently occur – such as mountain biking, conferences, and races – and what future activities are being considered? We have heard from a number of trail advocates about their desire for improved connectivity, access, and trailhead parking that could use lands that the Ski Area operates on (both private and public). The county has also received comments submitted by both the Boulder Area Trails Coalition and the Boulder County Horse Association, as well as individual community members, concerning challenges to accessing both summer and winter recreational uses on public lands and the potential for utilizing the Ski Area as a parking area or trailhead that would relieve pressure on the more sensitive and constrained Fourth of July Road corridor and Hessie area in the Middle Boulder Creek Area (see below). We see a lot of value in these comments. The county will continue to collaborate with USFS on efforts to support recreational access to the area that is also sensitive to the natural resources values that draw this use. We urge the

USFS to identify opportunities to use this EIS process as a means for resolving longstanding recreational access issues and conflicts.

- b. The 2011 Master Plan states that, summer “special events include corporate events, and races – including bike races, running races, and triathlons. At various summer events, as appropriate, the Nordic trail system is opened to mountain biking.” Indirect and cumulative impacts from these activities are not adequately addressed in the DEIS but should be in the Final EIS.
- c. As mentioned above, this expansion creates an opportunity to improve summer access to the Indian Peaks trail system via a trail connection from the base to Lost Lake. It appears that much of the connection can already be made on existing roads and change in elevation is minimal. Benefits include less vehicle traffic through the Town of Eldora, better emergency access to the trail system, reduced parking congestion along Hessie Road, leveraging existing parking facilities leading to reduced demand for new facilities on Hessie Road, better ability for trail users to use RTD (one-seat ride as opposed to transferring to the shuttle at the Nederland High School), access to flush toilets at the parking area, and traffic reduction along Hessie Road. Questions to be explored include:
  - i. What additional impacts/issues would be created from users illegally leaving the Lost Lake access trail?
  - ii. Is there private property that would need to be accessed?
  - iii. Would this allow or induce overuse of the Indian Peaks trail system?
  - iv. Can this analysis be done within the current EIS or would a separate process be preferable, such as a Forest Plan amendment?

**9. Proposed Bridge over Middle Boulder Creek and Use of County Road 130.**

- a. We do not believe the DEIS demonstrates a purpose and/or need for a bridge over Middle Boulder Creek and associated use of County Road 130. The DEIS fails to consider a reasonable alternative to accessing the bottom of Placer Lift. It appears the Ski Area could instead construct a service road from the existing Corona Lift access road down to the base of the newly proposed Placer Lift. Straight-line distance between the existing road and the Placer Lift base is approximately 1,600.
- b. We are concerned that installation of a bridge in this area will draw unauthorized pedestrian access from CR130 to the Ski Area resulting in undesirable additional summer use and associated impacts in this area. Not included within the DEIS, but shown in the 2011 Master Plan is a newly constructed road from the proposed bridge to another lift at Moose Glades. This additional infrastructure will further induce pedestrian access. From an unnecessary impacts perspective, this new access point will increase traffic through the Town of Eldora and increase parking pressures on both Hessie Road and townsite roads. These impacts could occur at any time during the year, not just when the Ski Area is operational.

- c. Neither Boulder County nor any other agency provides winter maintenance of the segment of CR130 between end of pavement and the proposed bridge, a segment approximately 3,000 feet (0.6 miles) long. Within the DEIS there needs to be discussion of the winter maintenance schedule and the required equipment the Ski Area would need to either purchase or contract to adequately perform this maintenance.
- d. We have additional concerns that winter maintenance of this segment of road would negatively impact Nordic skiers and snowshoers that currently use this segment of road for winter recreation and impact remediation needs to be included inside the DEIS. Where would the winter backcountry trailhead and parking, currently in the Town of Eldora, be located?
- e. There should be discussion and/or commitments to maximum daily and weekly use of (trips across) the bridge across all seasons.
- f. The segment of road between end of pavement and bridge is very rough, steep and narrow. Major earthwork and physical improvements to the road would be required before fully loaded logging trucks would be able to use this road during the construction phase, or to be reasonably used in the winter for emergency access. Improvements at some locations would likely require rock blasting. Further, in several locations the current edge of the road lies immediately on the USFS property boundary. Any widening of the road onto USFS would trigger a separate NEPA process and additional EIS.
- g. If the above segment of road were to be upgraded, it is unclear what agency would be responsible for continued maintenance and future capital improvement upgrades.
- h. The DEIS identifies the removal of eight on-street parking spaces along Hessie Road to accommodate the bridge approach. This would substantially reduce existing visitor access to Hessie Trailhead as there are currently only 40 on-street spaces. Illegal parking in this area due to low parking supply would increase emergency medical services vehicle response times. A 20% reduction in parking would exacerbate this issue.
- i. The proposed bridge to CR130 would require an access permit from Boulder County.

**10. Impacts on Eldora Ski Road (County Road 140).**

- a. The Final EIS should include more specifics on the impact of the increased traffic impact on Eldora Ski Road, as well as possible mitigation. There was no mention of the additional required maintenance and physical improvements to the roadway infrastructure triggered by construction traffic and increases in daily use traffic. Commitments to such road improvements were made in the 1978 Road Agreement as well as the 1998 Special Use Agreement and similar commitments appear appropriate in this context.

- b. Traffic will be increased by 31% in both the AM and PM peak hours with additional congestion and safety concerns. There are particular congestion concerns in the afternoon peak hour for left turns off of CR130 onto SH119. This is a single lane approach meaning any queued left-turning traffic blocks right and through traffic.
- c. There are particular safety concerns on CR140. AASHTO Roadside Design Guidelines require more stringent physical safety conditions with increased traffic volumes. The traffic increases identified in the DEIS may trigger expanded road side clear zones and/or installation of guard rail or cement jersey barriers. Segments of CR140 along Peterson Lake are currently very hazardous during high wind conditions which are often present in this area. Heavy snowfall can exacerbate these hazards. Increased public exposure to such hazards as a result of more users will likely require mitigation and should be explored in the Final EIS.
- d. There is no discussion of transportation demand management programs to reduce daily vehicle traffic for both staff and visitors. This would include industry-tested programs such as:
  - i. Paid parking at the base parking lot to encourage carpooling and transit use.
  - ii. Employer paid Eco Pass programs for staff.
  - iii. Transit pass programs for day skiers.
  - iv. Promotion of RTD services in all Ski Area general advertising materials.
  - v. Staff shuttle from satellite parking lots (e.g. the Ski Area-owned property at intersection of CR130 & SH119).
- e. To mitigate the increased traffic, season and multiday Ski Area ski passes could be printed on RTD Smart Cards to provide unlimited ski and transit access on the same card. Discussions between Boulder County and RTD indicate that Smart Cards could be programmed to be valid only on the N route and only when Ski Area is operational.

## **11. Parking**

- a. The parking demand estimates included in the DEIS assume that new users will exhibit the same mode split as today. Transportation demand management programs would change these estimates and the Final EIS should show different parking scenarios based upon different mode assumptions.
- b. Given that most of the additional proposed parking will be unused for the majority of the year (close to 350 days each year) the Final EIS should explore an alternative that uses the 180 spaces at the Nederland High School. For the busiest ski days of the year, the Ski Area could run visitor shuttles from this parking facility.

## 12. Concerns on Traffic Operations Methodology

- a. Boulder County Transportation Department traffic counts are referenced in the study but have little relevance since these are conducted in the summer and are not representative of winter conditions. In addition, the report divides total annual traffic by 365 days but this is not representative of actual volumes during ski season.
- b. There appears to be discrepancy within the DEIS on the expected number of passengers in arriving vehicles. On page 3-42, 3/20/12 day counts show a 2.47 Average Vehicle Occupancy AVO but page 3-40 shows a skier/vehicle index of 0.625.
- c. Table 3B-5 states that vehicle-per-hour forecasts are within 1,700 vehicles-per-hour, a benchmark of lane capacity often used in traffic operation analysis. The report suggests that since additional generated traffic is within this benchmark that the Ski Area expansion is not expected to trigger any traffic congestion impacts. The 1,700 benchmark, however, is intended to be used on road segments with no turning movements or intersections. This is clearly not applicable for this location and thus all volume to capacity ratios (V/C) throughout the report are inaccurate.
- d. It is possible that an amended CDOT access permit will be needed for SH119, although this is not immediately clear. In general, CDOT requires an amended access permit when a single development or redevelopment increases the existing traffic conditions by more than a 20%. If an amended permit were necessary it would be the responsibility of Ski Area, not Boulder County.
- e. The Final EIS should provide a construction phasing plan to understand how construction equipment will access the Placer chairlift before the bridge is built.
- f. The Final EIS needs to clarify if the air quality models are using AADT or seasonal numbers.
- g. The Final EIS will need to provide an LOS analysis of all intersections. This will need to include a direction split of traffic including CR140/CR130 and N/S SH199.
- h. Boulder County staff is not aware of any precedence on CDOT roads of the traffic mitigation technique indicated on page 3-63: “Stationing a public safety officer to control traffic flow during the busier skier days would be a no-impact means to reduced seasonal left turn delay.” It is unlikely that Boulder County would permit this traffic management approach at this intersection.

13. **High Wind Concerns.** P. 2-49 states that, “If these chairlifts are able to remain open during wind events...” (emphasis added). Is this an open question? Other parts of the document imply that the new chairlifts would “solve” the Purpose and Need objective of addressing skier safety during prevalent wind events. If the wind

performance of the new chairlifts is questionable, this is a fundamental unknown, and central to the EIS analyses.

14. **Water Quality Impacts.** The Ski Area is proposing to add snowmaking equipment for 58 additional acres of terrain. Most if not all of the runoff from snowmaking will be into Middle Boulder Creek near Hessie, which then flows through the townsite of Eldora where all homes with water are on wells. In addition, there will be construction traffic crossing Middle Boulder Creek at Hessie for installation of a new chairlift, replacement of an existing chairlift, vegetative and tree removal/thinning for ski terrain, road improvements on CR 130, and other earth disturbance activities. While most of these activities will be on USFS lands, some will be on private land on the south side of Middle Boulder Creek, and all will be draining into that creek. Some new trail and lift construction may also take place in the Jenny Creek drainage on the south (Gilpin County) side of the existing Ski Area. The Final EIS should explain in more detail how impacts to water quality will be avoided, minimized, or mitigated, as well as require the Ski Area to obtain all applicable U.S. Corps of Engineers permits for work in waterways.
15. **Wastewater Treatment.** The Ski Area proposes to add 1,100 seats for guests in two facilities: a new on-mountain building (the Challenge Mountain facility) with seating for 850 guests, and an expansion to the existing on-mountain Lookout facility to accommodate an additional 300 guests. The Lookout facility and Challenge Mountain facility both treat wastewater through separate onsite wastewater treatment systems permitted through Boulder County Public Health and the Colorado Department of Public Health & Environment (CDPHE), Water Quality Control Division. The Final EIS should include more details on the adequacy of the Ski Area's existing wastewater system to adequately treat any additional wastewater flows from the additional seating at the Lookout Facility and new wastewater flows generated by the Challenge Mountain Facility. It should also require the Ski Area to obtain any and all applicable federal, state, and local wastewater treatment system permits required for any expansion or design of additional systems.
16. **Stormwater Discharge.** The EIS indicates that a new Challenge Mountain Facility will be constructed. Under the provisions of the Colorado Water Quality Control Act, the Ski Area may need to obtain a general construction permit for stormwater discharges associated with development of a property greater than 1 acre or as part of a larger common plan of development or sale that will disturb at least 1 acre. The applicant should ensure all efforts are made to prevent any sediment discharge to waters of the State. In addition, if there is a need to dewater the site, the owner or operator must obtain a Construction Dewatering Permit from CDPHE Water Quality Control Division and permission from the local government to discharge to the storm drainage system. The Final EIS should require that the Ski Area obtain all applicable state and local stormwater permits.
17. **Health Department Review of Retail Food Establishments.** The EIS indicates that the existing Lookout Facility seating will be expanded by 300 seats. This facility currently prepares and serves food to the public and is regulated by Boulder

County Public Health. If the food services, preparation or cooking areas are remodeled or expanded a retail food establishment plan review with Boulder County Public Health will need to be conducted before any approval or construction begins for a new or expanded retail food facility. If the new Challenge Mountain Facility plan to prepare or serve food it will also be required by Boulder County Public Health to complete a plan review before any approval or construction begins.

**18. Air Pollution.**

- a. General. All sources of air emissions in Colorado are required to obtain a construction permit unless they are specifically exempted by the provisions of Colorado Air Quality Control Regulation 3. The Construction Permit Unit, located within the Stationary Sources Program of CDPHE, issues construction permits to commercial and industrial air pollution sources in Colorado in order to ensure compliance with air quality regulations. The permitting process and requirements involve a two-phased approach. The first phase requires the source to report air emissions through the submission of an Air Pollutant Emission Notice (APEN). For sources with air emissions exceeding permitting thresholds, the second phase involves the issuing of an air permit. The Final EIS should clearly state the Ski Area's plans to minimize air pollution and obtain all necessary permits.
- b. Land Disturbance. The EIS indicates a new Challenge Mountain facility will be constructed. If the disturbance of the land surface area for this development exceeds 25 contiguous acres and/or six months in duration, the site shall be subject to the requirements of the Colorado Air Quality Control Commission's Regulation No. 3, which requires an APEN with fee submitted prior to the property's surface area being disturbed. Additionally, the Ski Area is within an air quality non-attainment area. If the proposed development will clear one acre of land and fugitive particulate emissions will be emitted they shall be required to use all available and practical methods which are technologically feasible and economically reasonable in order to minimize such emissions. Appropriate controls may include, but are not limited to watering, vegetation, synthetic cover, chemical stabilization, furrows, compacting, and other methods or techniques approved by Boulder County Public Health.
- c. Unpaved Roadways. The Ski Area or operator responsible for construction or maintenance of any (existing or new) unpaved roadway which has vehicle traffic exceeding 150 vehicles per day in non-attainment areas (averaged over any consecutive 3-day period) from which fugitive particulate emissions will be emitted shall be required to use all available, practical methods which are technologically feasible and economically reasonable in order to minimize emissions resulting from the use of such roadway in accordance with the requirements of Section III.D. Colorado Air Quality Control Regulation 1.

19. **Asbestos.** The EIS indicates the Lookout Facility will be remodeled. If this work will disturb suspect asbestos building materials greater than trigger levels, then prior to this renovation an Asbestos Inspector, qualified by the Colorado Department of Public Health and Environment (CDPHE), must inspect and test building materials to be affected. If verified asbestos containing building materials must be disturbed, then those materials must be removed prior to the renovation. One exemption does exist for buildings constructed after October 12, 1988: “Buildings, or those portions thereof, that were constructed after October 12, 1988 shall be exempt from this inspection requirement if an architect or project engineer responsible for the construction of the building, or a state certified Inspector, signs a statement that no asbestos containing material (ACM) was specified as a building material in any construction document for the building or no ACM was used as a building material in the building.” Boulder County Public Health recommends that all buildings be inspected prior to any renovation or demolition activities, regardless of the date of construction. This process requirement will prevent unintended indoor asbestos contamination of the facility and unintended outdoor contamination during waste disposal.

### **Conclusion**

To summarize, at this point the County believes the DEIS represents an improperly truncated review of alternatives; a lack of meaningful analysis on secondary and cumulative impacts, given the reasonably foreseeable full build-out of the Ski Area’s Master Plan; substantial and potentially unacceptable impacts to the Middle Boulder Creek drainage; and insufficient details on mitigation to compensate for unavoidable impacts. We urge you to use all practicable means to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon that environment to the fullest extent possible, as NEPA requires.

Again, thank you for the chance to comment on the DEIS. We look forward to working with you to resolve our concerns. If you have questions about our comments, please let us know or contact Commissioners’ Deputy Michelle Krezek, at [mkrezek@bouldercounty.org](mailto:mkrezek@bouldercounty.org) or (303) 441-3561.

Very truly yours,

A handwritten signature in cursive script that reads "Cindy Domenico".

Cindy Domenico

Chair, Boulder County Board of Commissioners



## Board of County Commissioners

---

May 8, 2014

Eldora DEIS Projects  
c/o Paul Alford, Team Leader  
Boulder Ranger District  
2140 Yarmouth Avenue  
Boulder, CO 80301  
[info@EldoraEIS.com](mailto:info@EldoraEIS.com)  
*Via U.S. mail and e-mail or e-filing*

Re: Additional Comments Regarding the Eldora Mountain Resort Ski Area Projects  
Draft Environmental Impact Statement

Dear Mr. Alford:

Thank you for the chance to review the Eldora Mountain Resort Ski Area Projects Draft Environmental Impact Statement ("DEIS"). We respectfully submit the following comments to supplement those we submitted on April 14, 2014.

As you will recall, due to the tight timeline for submitting comments on the DEIS as well as the competing demands on our time as we prepare for the uncertain impacts of spring runoff in the wake of the September 2013 floods, we were unable to schedule a public hearing to get our residents' input on the DEIS prior to submission of our original comments. This letter is to supplement our original letter with the additional comments we received at the public hearing held Thursday, April 17, as well as written comments from the public. It incorporates by reference all of the past comments submitted to the Forest Service by Boulder County either in the scoping process or our previously submitted comments on the DEIS. We reserve the right to raise additional issues later in the NEPA process.

At the April 17 hearing, 22 speakers provided comments testimony. Some speakers spoke in favor of the ski area, including noting its positive role in the community and the opportunities it affords for recreation for diverse users in Boulder County. As stated in our scoping comments of August 2012, the County acknowledges the amenities the resort provides, including recreational and economic opportunities, and recognizes that there are a significant number of County residents who are downhill skiers or snowboarders who value the location of a ski resort in Boulder County. There is real value to these residents in maintaining the long term viability of the Ski Area.

Many speakers also voiced concerns similar to those included in the previous letter we submitted, such as the difficulty that many citizens had in being able to evaluate the volume of extensive technical information in the document in only 45 days, the lack of an infill alternative, the impact that expansion would have on residents of the Town of

Eldora, the impact the expansion would have on Middle Boulder Creek and Jenny Creek, the safety of the Jenny Creek Trail where it crosses ski runs, the impact on wildlife migration, the inadequacy of the archaeological survey methodology, mitigation of noise impacts during construction and future operations, as well as other issues. Additional comments expanding on those we filed April 14, 2014 are noted below.

**1. Issues Analyzed and Issues Dismissed.**

- a. Construction of a Bridge over Middle Boulder Creek. The DEIS notes that a bridge crossing Middle Boulder Creek and two road segments would be constructed to connect CR 130 to the proposed Placer Express terminal site. The bridge would facilitate the transportation of construction materials to the site of the bottom terminal of the Placer Express chairlift as well as provide on-going maintenance access. Between 552 and 628 total trips for tree removal are estimated for Alternatives 2 and 3; however, it is unclear what additional maintenance activities would need to occur and the frequency at which such activities might occur. The DEIS did not adequately address the type and extent of the bridge use and the full impacts of such use.
- b. Concerns Relating to Wind. The DEIS dismissed the need for wind analysis, even though how the new chairlifts would perform in wind is questionable and the DEIS acknowledges that many of the proposed components of the alternatives are affected by wind. What is unknown as a result of the lack of wind analysis is how much effect the wind would have on these alternatives. Additionally, wind is used to justify expansion toward Middle Boulder Creek, yet no wind analysis is provided to support the expansion. For example, it seems important to know what the wind levels are near Middle Boulder Creek on the days when wind levels are so high as to close the lifts at the resort.

**2. Affected Environment and Environmental Consequences: Fish and Wildlife**

- a. Species of Concern. In our April 14, 2014 comments, we expressed our desire to protect all threatened, endangered, and sensitive species, other species of concern, wetlands, riparian areas, watershed and stream quality, and old-growth forests. Please see the Appendix to this letter for additional, more specific comments related to several wildlife species, including why the DEIS treatment of the Rocky Mountain capshell snail, northern goshawk, pygmy shrew, American marten, flammulated owl, olive-sided flycatcher, and several bat species is inadequate. We also request the USFS better analyze cumulative impacts as well as impacts of the Alternatives on the several Species of Special Concern listed near the end of the Appendix, identified in the most recent Boulder County Comprehensive Plan species but not analyzed in the DEIS.

3. **Affected Environment and Environmental Consequences: Watershed, Wetlands and Soils.**

- a. Impact of Tree Removal and Lift Placement on Avalanche Potential; Impact of Any Necessary Avalanche Control on Environment. No reference was made to whether the potential for impacts related to increased avalanche danger or need for avalanche control was studied, except for a brief mention of the following guideline in the proposed forest plan amendments: “(GL) Prohibit cutting trees or locating structures in areas that promote snow loading in avalanche starting zones.” Avalanche danger certainly affects the safety of visitors to the ski area. Additional avalanche control and resulting noise affects wildlife as well as the town of Eldora. The type of explosives used for avalanche control may also affect water quality, soil, wetlands, vegetation, and wildlife.
- b. Effects of Chemical Additives for Snowmaking on Water Quality, Wetlands, and Soils. The DEIS does not mention the type of additive that Eldora uses in snowmaking, but it has been reported that Eldora uses a product called Snowmax. No data on the impact of this or similar products was considered. No measurements were taken of the amount of chemical used nor the amount that may be present in soil or in the water now. Similarly, no data was included which shows how much of the chemical might be used and their level of dilution for each of the alternatives, how much might get into streams or groundwater, or their effects on organisms. The Final DEIS should include more information on these issues.
- c. Effects of Additional Spraying of Carbaryl in Watersheds. Although the DEIS notes that Eldora will continue spraying carbaryl pursuant to the Forest Service application specifications as directed in the 2007 Decision Memo for Direct Control Efforts for the Mountain Pine Beetle at Eldora Mountain Resort, the DEIS does not specify whether Eldora would spray additional areas of trees under Alternatives 2 or 3, and if additional spraying would occur, what the effect on watersheds would be. The Final DEIS should include more information on these issues.
- d. Monitoring. The Final DEIS should include substantially greater detail on what monitoring will take place to ensure that the Ski Area adhere to any and all approved project design criteria and best management practices. Water quality is of particular concern. Information on how often monitoring will occur, potential contaminants of greatest concern, acceptable levels of those contaminants, required corrective measures upon violations, which parties will be responsible for ongoing monitoring activities, and where monitoring reports will be made publicly available.

### **Conclusion**

Again, thank you for the chance to submit these additional comments on the DEIS. We look forward to working with you and Eldora Mountain Resort to resolve our concerns. If you have questions about our comments, please let us know or contact Commissioners' Deputy Michelle Krezek, at [mkrezek@bouldercounty.org](mailto:mkrezek@bouldercounty.org) or (303) 441-3561.

Very truly yours,

Cindy Domenico

Chair, Boulder County Board of Commissioners

Encl.            Appendix – Wildlife Species – Analyses of Impacts

## APPENDIX – WILDLIFE SPECIES – ANALYSES OF IMPACTS

### Inadequate Analysis

**Rocky Mountain capshell snail** – Impacts to the species are dismissed in two sentences on p. 3-203. The DEIS does not include any data on the species since 1996. In Alternative 2, snowmaking coverage would increase by 58 acres. All snowmaking water comes from Peterson Lake, the species only habitat. It is either likely or possible that water fluctuations in Peterson Lake have contributed to the apparent decline of the population. It is likely that increased snowmaking will increase the severity of water fluctuations in the lake. The existing unpaved parking areas are documented to contribute sediments and pollution to the nearby downstream lake (see p. 3-172). The 560 new unpaved parking spaces will significantly increase these inputs. There is no analysis of these direct impacts. P. 3-203 states that, “...impact zones would not extend to occupied...habitat.” Therefore, it concludes, that there will be no impact. Neither of the above potentially major impacts to the lake are recognized or analyzed. Even if the statement that (direct) “impact zones would not extend to occupied habitat” is accepted, the above impacts are indirect and must be analyzed in the DEIS. Further, cumulative impacts must be analyzed; these include the past impacts to the snail population in the lake, as it is somewhat discussed in the Affected Environment. There is, however, no conclusion as to how these past impacts have affected the snail population. Additionally, no data gathering beyond 1996 was attempted, necessary for an adequate analysis of the past, present and reasonably foreseeable future impacts on the snail. The analysis is inadequate.

A second gastropod is known from the Peterson Lake area – the umbilicate sprite (*Promenetus umbilicatellus*). This species is listed in the county’s Comprehensive Plan as a County Species of Special Concern (see below). It should be analyzed in the DEIS.

**Northern goshawk** -- Conclusion statements for impacts to northern goshawk are unsupported and misleading. P. 3-205 states that, “Any goshawks present, may be temporarily displaced by construction season project activities, but would be expected to return to suitable habitat once activities are complete.” On what evidence or study is this based? Even if potentially true for the summer construction season, the major human disturbances on the impacted habitat are winter skiing. Is it the conclusion that goshawks would return to hunt on open ski runs? It further states that, “The Alternative 2 impact area, including areas affected by PDC, represent an insignificant proportion of the total potential range and habitat available to this species on the Forest.” The Arapaho/Roosevelt Forest is 1.5 million acres in size. How many acres of lost goshawk habitat would represent a significant proportion of the total range on the Forest? The statement is not relevant. The DEIS is not analyzing impacts to the Forest-wide population of goshawks, particularly when it is a designated US Forest Service sensitive species. To do so, as this last “conclusion” statement asserts, is highly misleading.

**Pygmy shrew** -- The following comments on this analysis suggest that the overall approach to wildlife impacts may be questionable. P. 3-178 states that, “No suitable trapping surveys have been conducted within the project area...to detect pygmy shrews.” Why were small mammal trapping surveys not completed, particularly for this Forest Service sensitive species? “Evidence to date indicates that this species is rare on the landscape, suggesting that it is unlikely to be

present within EMR analysis area.” In most cases, a species is listed as sensitive because of the very fact that it is rare. The Rocky Mountain capshell snail happens to be in Peterson Lake, but since it is “rare on the landscape,” one could have concluded that it is “unlikely to be present within the EMR analysis area.” This is the very reason that surveys are necessary, and in this case why small mammal trapping is necessary. Occurrences of pygmy shrew east of the Continental Divide in Larimer County, and a potential distribution model in Beauvais & McCumber, 2006 (Pygmy Shrew (*Sorex hoyi*): A Technical Conservation Assessment, G.P. Beauvais and J. McCumber, **USDA Forest Service, Rocky Mountain Region, Species Conservation Project**) clearly show the potential for the species at EMR.

“The...areas that would be most suitable for this species...[include] the bottom of Moose Glades, below the Corona base terminal down to Middle Boulder Creek, some areas along the Middle Boulder Creek floodplain, and on NFS and private lands east of the Indian Peaks pod.” This is a long list of “suitable” areas. On page 3-208, the impact discussion states that, “Indirect effects associated with this project, limited to increases in dispersed recreation extending into potential pygmy shrew habitat, would have no impact on this species [with citation to Fitzgerald et al., 2011].” This reference – *Mammals of Colorado* – includes no material in its discussion on pygmy shrews that is relevant to the quoted conclusion about recreational impacts. P. 3-208 also states that, “Loss of forest-interior prey may be partially offset during the snowfree season by substantial increases in deer mice (potential prey) on newly created ski trails.” Fitzgerald states that pygmy shrews “prey on a variety of small invertebrates and carrion of vertebrates, including mice and other shrews.” Deer mice may be more abundant on ski runs, (the County speculates that it might be vole species that are more abundant, not deer mice), but mice and shrews are already abundant in the understory of sub-alpine forests, the current condition of the sites. Pygmy shrews weigh from 2 to 5 grams. Although shrews are ferocious for their size, this species would have difficulty with a 14 to 27 gram deer mouse.

Beauvais & McCumber also document: 1) how easily pygmy shrew habitat can be fragmented due to the species being both a habitat specialist and a prey specialist, as well as its tiny size limiting its mobility to “other” patches of suitable habitat; and 2) that tree removal converts preferred habitat of mesic forest to dry and open grassland. They suggest that “the known distribution of this montane subspecies strongly suggests that its fate will be determined by management of national forests within Region 2....”

As with northern goshawk, the DEIS states that, “The Alternative 2 impact areas... represent an insignificant proportion of the total potential range and habitat available to this species on the Forest.” As with goshawk, this statement is irrelevant and misleading. Given the long list of dubious statements presented here, concerning the analysis of a single species, the overall approach to wildlife analyses is questionable.

The statement about the impacted area representing “an insignificant proportion of the total potential range...on the Forest” is repeated for nearly every wildlife species in the document, and is not germane to the analyses in an EIS. How many impacted acres would entail a “significant” proportion for *any* species’ habitat?

**American marten** – P. 3-179 states that, “Past and present actions that resulted in habitat conversion, fragmentation, loss and incomplete successional recovery that were largely associated with...more recent ski area development in the EMR project area, may have negatively affected potential habitat and local populations of this species, mostly negatively. Forest fragmentation associated with ski area development in late-successional forest is thought to negatively affect local marten use of the landscape.” Yet in the Consequences section, there is no conclusion on the impacts to this species. P. 3-211 states that, “Marten habitat effectiveness may decline in an area larger than the area of tree removal [already at 248 acres (p. 2-63)] as a result of fragmentation effects and tree skiing. The effect of tree skiing intertrail islands on the local forest prey base are unclear, but are unlikely to be beneficial.” “Alternative 2 would affect martens by removing and thinning linear forest strips representing foraging habitat and possible denning habitat, likely extending into portions of *several* individual’s home ranges” (emphasis added). Why is home range size discussed in analyses for other species, but not for marten? An analysis that considers home ranges should include the cumulative impacts from the existing ski area, as well as the additions proposed. It is stated above that ski areas do have negative impacts to martens. This is particularly important since, “The value of lodgepole and lodgepole-dominated mixed conifer stands to the marten prey base may decline in the short- to moderate term as the MPB epidemic progresses through the EMR project areas and forests beyond.” This is an additional cumulative impact that must be considered when analyzing impacts to marten. It makes the negative impacts from the proposal even more significant.

P. 3-211 states that, “...diurnal skiing when martens are asleep in arboreal and subnival dens probably has little influence” on martens. There is little basis for this conclusion. Fitzgerald et al., 2011, states that, “Thompson and Colgan (1994) reported that martens were active less than 20 percent of the day in winter...” This study, however, was from the boreal forest of Ontario, a climate significantly different than Boulder County; the County believes that diurnal marten activity is common in Colorado. Also in Fitzgerald, a 1999 study in Montana found that, “...the animals were active at random, day and night...”

The second paragraph of the marten discussion on p. 3-211 speaks of fringed myotis habitat, another statement that brings question to the overall approach to wildlife impacts.

**Flammulated owl** – P. 3-176 states that “no specific taped calling surveys have been conducted at EMR.” Again, a designated Forest Service sensitive species was not surveyed. Although “some [field surveys] overlapped crepuscular hours,” this is insufficient. Taped calling surveys are standard protocol for detecting occurrence or absence of owl species. The same paragraph of the Affected Environment even concludes that “it is possible that flammulated owls could use EMR habitats...” The impact analysis on p. 3-206 states that, “Alternative 2 could result in the loss of [this species’] forested habitat.” The County concludes that it *would* result in such loss. The loss of habitat is not questionable; it is the presence or absence of the species that is questionable, and the DEIS does not answer this question. Therefore, it cannot conclude anything for this designated sensitive species.

Further, as with numerous species and impact analyses in general, PDC’s “have been developed that would minimize” impacts. Chapter 2 presents over 20 pages of PDC’s and BMP’s. P. 2-16 states that, “The potential effects of implementing the [alternatives] were analyzed with these

PDC applied.” For NEPA analyses, it is not appropriate to use such an extremely long list of “mitigating factors” to reduce or negate otherwise significant impacts caused by a project. Even if incorporated into the “terms and conditions of [a new] SUP,” there is no assurance that EMR, and particularly the understaffed Forest Service, have the means to follow and enforce 20 pages of such measures. These 20 pages actually represent 320 individual Project Design Criteria and Best Management Practices that are supposed to be followed. For about 50 of these PDC and BMP’s, the statement is qualified with terms such as, “if possible,” “to the extent possible,” “where necessary,” “periodically,” “to the extent feasible,” “to the extent practicable,” “minimize,” “avoid,” and “where it does not present a skier safety concern.” How are these nuances to be determined, and who will determine them? In particular, there are four statements such as, “To the extent possible, if flammulated owl nests are detected within impact areas....” There are such statements for flammulated owl, boreal owl, and olive-sided flycatcher nests, and American marten dens. Is this a commitment to survey for such nests and dens before tree removal or construction activity begins? As noted above, a simple taped calling survey for flammulated owls was not even completed as part of the impact analysis. Yet now, more detailed surveys are expected?

**Olive-sided flycatcher** – P. 3-177 of the Affected Environment states that, “During field surveys...olive-sided flycatchers were detected in a few larger, mixed conifer intertrail tree islands within the developed area.” How many flycatchers and in how many tree islands? The only thing that the presented information establishes is that there are olive-sided flycatchers present. “Olive-sided flycatcher habitat values in the existing SUP area should improve with ski trail succession, as trails succeed towards native meadows....” This statement is misleading, particularly in the Affected Environment section; the implication is that the existing ski runs are continuing to “improve” and provide a better and better habitat base for flycatchers. The existing trails at EMR are from 41 to 53 years old; are they truly succeeding “towards native meadows”?

The consequences section on p. 207 states that, “Tree removal could be partly beneficial from a long-term, foraging habitat, perspective if forest openings **could be** revegetated or succeed to support a higher prey base.... That result does not always occur with conventional ski trail development. However, it is more likely to result with the type of flush cutting and tree removal being proposed” (emphasis added). How does flush cutting of stumps, or how trees are removed, result in “better” conditions for flycatchers? Also, is it likely/possible (or, what **is** the proposal for revegetation?) that forest openings would **not** be revegetated? Finally, p. 3-208 states that, “Habitat effectiveness may decline in an area larger than the area of tree removal as a result of forest fragmentation effects, snag removal, and subsequent ski trail forage effectiveness.” How much could it decline? Is there data to quantify such losses?

**Bat species** -- Three species are addressed in the document – fringed myotis, hoary bat, and Townsend’s big-eared bat. The document states that these species are potentially present in the analysis area, but, like small mammals, no effort to determine even presence/absence was attempted. There are six other bat species on Boulder County’s list of Species of Special Concern that could occur in the EMR area -- big brown bat, silver-haired bat, little brown myotis, long-eared myotis, long-legged myotis, and Western small-footed myotis; see below. Bats comprise 15 percent of all the mammal species found in Colorado, yet most species have been dismissed from the document, and no species had field surveys completed for the DEIS. Peterson Lake and

its nearby meadows and wetlands, the riparian area of Middle Boulder Creek, and areas of mature spruce-fir forest all likely support some bat species, and possibly some of the nine species listed.

P. 3-205 states that, “Cables associated with new chairlifts would not represent a meaningful collision hazard.” How is this concluded, and why only for peregrine falcon, but not night-hunting owl species, nor for northern goshawk which hunt at very high speeds and at low altitudes?

Numerous statements are made about particular species using other Colorado ski areas as “habitat.” These statements are anecdotal and irrelevant. These include p. 3-174 – “Goshawks have been detected hunting developed portions of Breckenridge, Vail, Ski Cooper, and Powderhorn Ski Areas.” This implies that birds are even “selecting” ski area habitat. And, without any further explanation, this could simply represent four individual birds that used the sites while moving through the area to more suitable habitat, perhaps even in summer, without skiers. Similarly, on p. 3-177, “Boreal owls have been detected in suitably large habitat blocks within the developed interior of Vail Ski Area and adjacent to developed portions of Telluride Ski Area and Durango Mountain Resort.” What does this mean? Vail Ski Area includes very large blocks of natural habitat; are they similar in size to the blocks at EMR? If not, is this a relevant statement? What constitutes “adjacent to” at the other two ski areas? Presumably, all species will use adjacent habitats based on whatever their spatial tolerances are to habitat modifications and to human use/disturbances in a given situation. Without further explanation, such statements are misleading at best.

One of the few analyses that concludes that the proposal will affect a species is Canada lynx. P. 3-199 states that, “Alternative 2’s collective effects on lynx foraging, sheltering, and breeding would exceed the definitions of insignificant and discountable [referencing a 1998 federal document]. Therefore, Alternative 2 warrants a **“may affect, likely to adversely affect”** determination for Canada lynx” (emphasis in text). Yet this conclusion is not even presented in Table 2-5 – Summary Comparison of Consequences. 40 CFR 1502.14, as cited on p. 2-47, calls Chapter 2 “...the heart of the...” DEIS, and that it should “...present the environmental impacts of the proposal and the alternatives in comparative form, thus **sharply defining the issues and providing a clear basis for choice among options** by the decisionmaker and the public” (emphasis added). Instead, Table 2-5 includes no conclusion on the impacts to lynx, rather simply provides a series of acreage figures, without context. This is true for numerous species in Table 2-5 – no conclusions are included, but rather a simple statement of acreages affected. Table 2-5 does not sharply define the issues nor provide a clear basis for choice.

Another example is the impacts to the wildlife movement corridor along Middle Boulder Creek. The table simply groups this issue into “Other Habitats” and refers the reader to Chapter 3, Section H, yet this is one of the major impacts of Alternative 2. P. 3-220 documents this area’s importance: “Continuous, largely forested habitat on the south side of the creek is nearly 100 percent effective, mostly buffered from north-side human activities by the high creek flows and lack of bridges (i.e., restricting human access), by the forest cover, and by the noise of the creek. It is likely that most terrestrial and arboreal wildlife movements along Middle Boulder Creek

occur on the south side of the creek (i.e., because the habitat is broader and more effective [especially for forest-interior and more reclusive species]).”

It goes on to document the impacts: “Under Alternative 2, the Placer collector trail (+/- 70 feet wide, +/- 1,800 feet long) would be constructed along the floodplain terrace south of Middle Boulder Creek, in the wildlife movement corridor. The lower end of four ski trails (P-3 to P-6), the bottom of the Placer chairlift corridor and its base terminal would also be located in the corridor. A short access road and gated bridge across the creek would also be constructed.” Yet there is no conclusion as to how these impacts affect the corridor. After construction, “...most of the corridor function would resume, although it would be impaired from what is currently available by reduced forest cover providing less visual and noise attenuation.” So an 1800-foot collector trail, not to mention the chairlift base with year-round activities and vehicles, would simply “impair” forest interior species using the corridor? The section then ends by saying this base area would remain “more effective” habitat than that in the townsite of Eldora. This is, again, irrelevant and misleading.

Also in the Middle Boulder Creek “corridor,” yet on the north side of the creek, about 3000 linear feet of existing road would be: a) widened and improved to meet road standards, and to allow for workable snow plowing; b) would be plowed throughout the winter for vehicular access, which is currently not the case; c) would therefore allow winter recreationists to drive or walk up the road from the west end of the Eldora townsite; and d) would allow these recreationists to park at the de-facto “new” winter trail head at the end of plowing near the bridge crossing. All of these activities would affect this wildlife movement corridor, but none are included in the impact analyses.

### Cumulative Impacts

Appendix A includes the 2011 Master Plan as one of the “cumulative effects projects” that are to be considered when analyzing impacts in the DEIS. It states, “The projects in the Master Plan that are not part of this Proposed Action and/or Alternative 3 would require their own site specific NEPA analysis prior to implementation but are considered reasonably foreseeable future actions” (p. A-1). Yet, none of the wildlife (or scenic, or many other resource) impact sections include the Moose Glade Express lift nor the 5 or 6 other runs that are proposed in the Master Plan that would come down to Middle Boulder Creek. Also not included is the new connecting road joining the base of the Placer lift with the base of the Moose Glade Express; this road is about 1800 feet in length, and would traverse the “nearly 100 percent effective” habitat of the floodplain terrace.

The discussion of the cumulative effects to wildlife species begins on p. 3-245, with the recognition that effects from the 2011 Master Plan are to be considered. However, throughout the rest of this section, up to p. 3-256, any impacts from the not-currently-proposed aspects of the Master Plan appear to be systematically ignored. For example, no acreage figures are presented for the additional 7 or 8 ski runs, nor are either of the 2 new ski lifts – Moose Glade Express and Four O’Clock – mentioned. The Canada lynx discussion on p. 3-246 has no mention of further impacts to lynx habitat that would occur from the future projects documented in the Master Plan. The same is true for Northern goshawk on p. 3-248. A long list of other projects is listed on p. 3-

249, but the Master Plan is not among them. For the projects that *are* listed – about eight – the conclusion is that these projects “would have beneficial and negative effects to potential goshawk foraging and nesting habitat that could also be affected by Alternatives 2 and 3.” What does this mean? Of course there might be beneficial and negative effects, but what are they? How does the proposal add to or subtract from effects caused by the ski area proposal? Cumulative impact analysis would simply be a paper exercise if all that was required was to provide a list of other regional projects and conclude that some would be beneficial and some detrimental. Title 40 of the Code of Federal Regulations, at 1508.7, defines cumulative impact as “the impact on the environment which results from the incremental impact of the action **when added to** other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (emphasis added). The DEIS’s analyses of cumulative impacts are insufficient.

### Species not Addressed

Impacts on the following species are not analyzed in the DEIS and need to be included. These are Species of Special Concern in the county’s Comprehensive Plan.

- American dipper
- Ring-necked duck
- American three-toed woodpecker
- Northern pygmy-owl
- Dwarf shrew
- American water shrew
- North American porcupine
- Tiger salamander
- Big brown bat
- Silver-haired bat
- Little brown myotis
- Long-eared myotis
- Long-legged myotis
- Western small-footed myotis
- Umbilicate sprite



# **CITY OF BOULDER**

PUBLIC WORKS/UTILITIES

---

## **Water Quality and Environmental Services**

---

boulderwater.net

April 14, 2014

Mr. Paul Alford  
Boulder Ranger District  
2140 Yarmouth Avenue  
Boulder, Colorado 80301

Dear Mr. Alford:

The City of Boulder (city) appreciates the opportunity to provide comment on the Eldora Mountain Resort Ski Area Projects Draft Environmental Impact Statement (Draft EIS) released for public comment on February 28, 2014. The city also provided comments during the 2012 Scoping process on projects in the 2011 Master Plan for Eldora Mountain Resorts in an August 30, 2012 letter to the Eldora EIS NEPA Contractor. The city is not taking a position for or against the proposed alternatives in the Draft EIS, but the city does have an interest in how any future projects and ongoing operations might impact water resources.

The city owns and operates Barker Reservoir which is a primary drinking water source for the City of Boulder and is an on-line reservoir directly fed by Middle Boulder Creek. To maintain compliance with water quality standards in Barker Reservoir, and to provide City of Boulder residents with high quality drinking water that complies with state and federal drinking water regulations, the city relies on consistent high quality water in Middle Boulder Creek. Since the Eldora Mountain Resort is located in the upper reaches of Middle Boulder Creek, upstream of Barker Reservoir, the city is interested in activities that may impact water quality. Based on information in the Draft EIS released the city is interested in the following areas which have the potential to impact water resources, including water quality and water rights.

### **WATER QUALITY COMMENTS AND RECOMMENDATIONS**

Alternatives 2 and 3 in the Draft EIS propose improvements and associated projects that can negatively impact water quality during the period of construction and long-term, after the improvements have been completed, especially during precipitation and snow melt events. In addition, general operational activities at the ski area also have the potential to impact water quality. Provided below are specific comments and recommendations related to protecting water quality that need to be addressed in the final EIS.

---

**STORMWATER / INDUSTRIAL PRETREATMENT / WATERSHED  
OUTREACH / LABORATORY SERVICES**  
4049 N. 75<sup>th</sup> Street, Boulder, Colorado 80301  
Phone: (303) 413-7350  
Fax: (303) 413-7373

---

**DRINKING WATER / WATER CONSERVATION**  
5605 63<sup>rd</sup> Street, Boulder, Colorado 80301  
Phone: (303) 413-7400  
Fax: (303) 530-1137

**Baseline Water Quality and Stream Health.** The Draft EIS addresses water quality only from the perspective of evaluating the State of Colorado 303 d List (see page 3-284) and Stream Health (see page 3-289), which only includes physical and biological aspects, and not an evaluation of water chemistry. The State of Colorado 303 d List only identifies water bodies that are impaired and does not provide information on the health of the water body from the standpoint of water chemistry. The Draft EIS does not identify that water chemistry data has been collected in the stream reaches potentially affected by the proposed improvements and projects. Although the physical and biological aspects addressed in the Stream Health section are important an analysis of water chemistry is also needed.

**Recommendation:** The city requests that water quality, for all surface water bodies that may be affected by any project, be characterized through water quality monitoring to establish a water quality “baseline” prior to initiating any of the proposed projects. Baseline water quality should be evaluated at a location(s) upstream of any proposed project areas and at a location(s) downstream of any proposed projects. At a minimum, baseline water quality should be based on at least one year of data, collected at a frequency adequate enough to evaluate possible seasonal effects on water quality and to collect a sufficient amount of data to statistically evaluate possible water quality impacts from proposed projects.

After the development of a water quality baseline, water quality monitoring should continue throughout the duration of any proposed projects and data used to evaluate potential water quality impacts during construction and the effectiveness of proposed Project Design Criteria and Best Management Practices. Water quality monitoring should continue post-construction to evaluate long-term Project Design Criteria and Best Management Practices and the overall protection of water quality.

**Snowmaking Effects on Water Quality.** The Draft EIS does not include information on the use of additives to enhance snowmaking for existing snowmaking or proposed expanded snowmaking. It is the city’s understanding that the Eldora Mountain Resort currently uses Snowmax to enhance snowmaking and the city assumes Snowmax would be used as part of the additional snowmaking coverage identified in Alternative 2 and 3. The city has researched Snomax to gain a better understanding of the product and to identify potential negative impacts to human health or the environment. Snomax is identified as an ice- nucleating protein derived from naturally occurring bacteria, *Pseudomonas syringae*. Snomax is created through the fermentation process and the bacteria are harvested, sterilized, filtered, freeze dried, and pelletized. The sterilization process is to ensure that no live organisms remain and only the protein shell of the organism is used. The protein shell contains endotoxins in the cell wall, and endotoxins are a naturally occurring biological molecule that readily degrades in sunlight. There are no existing or proposed standards or limits (water or other) for endotoxins in drinking water in the United States.

**Recommendation:** In the city's July 13, 2012 Scoping letter the city requested information on the use, and potential impacts, of using Snowmax (or any other additive) be included in the Draft EIS. This request was not addressed in the Draft EIS. The city again requests that verification and information on the use of Snowmax be provided, including current and future proposed uses, and information on potential environmental and water quality impacts from using snowmaking additives, including Snowmax. The city also requests that any environmental or water quality data collected to evaluate Snowmax in the environment or water (specifically endotoxins) in the area of the Eldora Mountain Resort be provided.

### **Vegetation Management Effects on Water Quality**

The Draft EIS states that the Eldora Mountain Resort has applied Carbaryl for the management of Mountain Pine Beetle since 2008 (see page 1-6). Under Alternative 2 and 3 it is stated in the Draft EIS that the use of Carbaryl will continue following Forest Service application specifications.

**Recommendation:** The city requests any water quality data collected to evaluate the presence of Carbaryl in surface water be provided. In addition, the city requests information on any current Carbaryl water quality monitoring, including location and frequency, and whether Carbaryl monitoring will be conducted in the future.

### **Alternative 2 Proximity to Middle Boulder Creek**

Alternative 2, specifically the Placer Glades II area, expands skiable terrain very close to Middle Boulder Creek and substantially reduces the existing natural, vegetated buffer between the existing skiable terrain and Middle Boulder Creek. The existing vegetated buffer between the current skiable terrain and Middle Boulder Creek provides a natural buffer to help mitigate possible water quality impacts to Middle Boulder Creek from ski area activities and runoff. Alternative 3 provides a substantially larger natural buffer between skiable terrain, compared to Alternative 2, by limiting the extent of skiable terrain in the direction of Middle Boulder Creek.

**Recommendation:** As previously mentioned the city is not taking a position for or against the proposed alternatives in the Draft EIS, but does request that any project implemented at Eldora Mountain Resort maintain an adequate vegetated buffer between ski area activities and Middle Boulder Creek. In the city's opinion, not expanding ski area operations beyond the existing Special Use Permit (SUP) boundary would maintain an adequate buffer.

## **Septic System Expansion to Address New and Expanded On-Mountain Facilities**

Depending on the location, and type of system, sub-surface septic systems and leach fields can contribute to surface water quality degradation. Both Alternative 2 and Alternative 3 propose the addition of a new on-mountain facility (Challenge Mountain Facility) and expansion of an existing on-mountain facility (Lookout Facility). For both facilities the Draft EIS states that "On-site septic systems would accommodate sewage disposal for the proposed Lookout facility and Challenge Mountain Facility and both facilities will treat and dispose wastewater through a septic tank-leach field sewage disposal system". Footnote 20 on page 2-7 of the Draft EIS also states that "The current septic system and the Lookout facility would be expanded to accommodate additional use".

On page 3-307 of the Draft EIS it is stated that "Cold soil temperatures can lead to freezing problems and reduction in the microbial activity in septic systems. These characteristics would indicate, at the preliminary level of analysis, that the type of soil present at the location of the proposed sewage disposal shows limitations for the performance of septic tanks and absorption fields. However these limitations can be overcome with proper engineering design and maintenance".

**Recommendation:** The city requests that information be provided on the "proper engineering and design and maintenance" that will be implemented to adequately treat septic system waste and whether the systems will require a Site Location and Design Approval. The city also requests detail be provided on specific regulations and requirements that will be followed when designing and constructing septic systems.

## **WATER SUPPLY COMMENTS AND RECOMMENDATIONS**

The city understands that Eldora Mountain Resort proposes to operate existing activities, and future activities under Alternative 2 and 3 of the Draft EIS according to the terms and conditions of its existing water rights decrees. The city does not have specific comments on the Draft EIS related to water rights at this time but will evaluate our participation in the normal water court process should anything require Eldora Mountain Resort to pursue new or changed water rights in the future.

The city appreciates Eldora Mountain Resort considering the above comments and recommendations on the Draft EIS and the city looks forward to continuing to be involved in the Eldora Mountain Resort Ski Area Projects Environmental Impact Statement process. Should you have any questions regarding the city's interest in this project you can contact me at 303 413-7355.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bret Linenfelser", written in a cursive style.

Bret Linenfelser, P.H.  
Water Quality and Environmental Services Manager  
City of Boulder, Public Works Utilities



## Memorandum

Date: April 2, 2014  
From: Parks, Recreation & Open Space Advisory Board  
To: Paul Alford, Project Team Leader, BRD  
Re: EMR DEIS



Re Eldora Mountain Resort Ski Area Projects Draft Environmental Impact Statement:

The Town of Nederland Parks, Recreation and Open Space Advisory Board (PROSAB), met on April 2nd to receive input regarding the DEIS for the proposed Eldora Mountain Resort expansion and to formulate a position for submittal to the USFS. PROSAB considered the proposed expansion in light of the DEIS, the Town's approved vision statement, *Nederland Vision 2020*, and the *Nederland Area Parks, Recreation, Open Space And Trails (PROST) Master Plan*. PROSAB has the following observations and recommendations to offer to the USFS and the Responsible Official.

***Nederland Vision 2020*** – The following two vision statements are particularly relevant:

- *In 2020, Nederland is a town recognized for its trails, natural areas and unwavering commitment to the environment. Open spaces are abundant and balanced with active recreation areas and opportunities. Nederland's surrounding wilderness area and other sensitive natural areas are restored, protected and preserved.*
- *In 2020, Nederland continues to focus planning and economic development activities on efforts that address:*
  - o *Alternative energy sources to fossil fuels for transportation*
  - o *Alternatives for building and the use of sustainable materials*
  - o *Non-motorized travel in town*
  - o *Clean air, clean water and water conservation in and around Nederland*
  - o *Connections to the outdoor environment providing healthy, active lifestyles for people of all ages*
  - o *Minimal/reduced light and noise pollution*

***Nederland Area Parks, Recreation, Open Space and Trails Master Plan*** – Below are pertinent goals from the PROST master plan:

- *Nederland's parks, recreational opportunities, open space, and trail system together fulfill the needs of residents of the greater Nederland area for local facilities, programs, and natural areas that support their well-being, their active lifestyles and their needs for indoor and outdoor recreation, their cultural and educational interests, and their desire to interact with the natural environment and with each other, while supporting the environmental, social, and economic sustainability goals of the community.*
- *Nederland-area recreational activities and programs address the expressed recreational needs and preferences of the Nederland-area community and promote healthy, active, and culturally-rich lifestyles in an environmentally sensitive manner.*

### PROSAB Findings

1. PROSAB recognizes the value of EMR in providing a venue for active recreation in the Nederland area, in keeping with the goals of *Nederland Vision 2020* and the PROST plan, and supports efforts by EMR

to remain competitive and improve the recreational experience for its visitors. (61% of area respondents to a statistically-valid PROST survey conducted in 2012 reported that they were users of EMR, so the resort is important to a majority of community members). We also recognize that EMR is located adjacent to wilderness and other areas with high dispersed recreation, watershed and habitat values. It is important that the critical balance between active recreation areas and wilderness, referenced in the first *Nederland Vision 2020* vision statement, be maintained, as well as the water quality in Middle Boulder Creek, which provides drinking water for the Town of Nederland and the City of Boulder. With this in mind, PROSAB urges the Responsible Official to reject the proposed EMR expansion north to Middle Boulder Creek, as presented in *Alternative 2* of the DEIS. We support the expansion to the south, as presented in *Alternative 3*, as having less of a negative environmental impact on the critical Middle Boulder Creek riparian area, reduced viewshed impacts from the Eldora community and the Hessie trailhead and for avoiding possible traffic increases on CR 130 through Eldora, while addressing the stated needs from the EMR Master Plan.

2. PROSAB applauds the thoroughness of the DEIS in addressing runoff and erosion issues, forest health and noxious weeds.
3. We find the *Sustainability* section of Table 2.3 to be weak and suggest the addition of quantifiable sustainability goals.
4. The impact of EMR traffic within the Town of Nederland is inadequately treated. Reliance upon CDOT criteria for highway carrying capacity ignores the very real gridlock created during afternoon peak hour EMR traffic within the town. Motorists needing to cross or enter the east-bound lane of traffic can wait for minutes for an opportunity to do so. Some means of effectively mitigating the negative impacts of resort traffic within the Town should be required in the PDC.

In summary, PROSAB appreciates the comprehensiveness and thoroughness of the USFS analysis in the EMR DEIS and welcomes the opportunity to provide a Nederland perspective. We encourage the Responsible Official to accept *Alternative 3*, from the DEIS, to strengthen the sustainability requirements of the PDC and to address the negative impact of increased resort traffic within the Town of Nederland.

Sincerely,

A handwritten signature in black ink, appearing to read 'RDL' with a stylized flourish at the end.

Randy Lee, Town of Nederland Trustee and PROSAB Chair on behalf of the Nederland PROSAB

# **Appendix D**

## **Response to Comments on the Draft EIS**

---

# RESPONSE TO COMMENTS ON THE DRAFT EIS

## TABLE OF CONTENTS

<b>1.0</b>	<b>PURPOSE AND NEED .....</b>	<b>8</b>
1.1	<i>Disagreement with Purpose and Need .....</i>	<i>8</i>
1.2	<i>Agreement with Purpose and Need .....</i>	<i>14</i>
1.3	<i>Data to Validate Purpose and Need .....</i>	<i>15</i>
<b>2.0</b>	<b>ALTERNATIVE .....</b>	<b>18</b>
2.1	<i>Maximum Expansion Alternative 2 &amp; 3 Combination .....</i>	<i>18</i>
2.2	<i>Infill Only Alternative .....</i>	<i>18</i>
2.3	<i>Alternative Placer Chairlift Designs.....</i>	<i>20</i>
2.4	<i>General.....</i>	<i>21</i>
<b>3.0</b>	<b>NEPA PROCESS.....</b>	<b>23</b>
3.1	<i>Conflict of Interest.....</i>	<i>23</i>
3.2	<i>General.....</i>	<i>24</i>
<b>4.0</b>	<b>PLANNING DOCUMENTS – GENERAL .....</b>	<b>26</b>
4.1	<i>Eldora Environmental Preservation Plan .....</i>	<i>26</i>
4.2	<i>Boulder County Comprehensive Plan.....</i>	<i>28</i>
4.3	<i>General.....</i>	<i>29</i>
<b>5.0</b>	<b>SUP BOUNDARY ADJUSTMENT\FOREST PLAN AMENDMENT .....</b>	<b>29</b>
5.1	<i>Forest Plan Amendment Consistency and Analysis .....</i>	<i>29</i>
<b>6.0</b>	<b>BOTANY .....</b>	<b>31</b>
6.1	<i>General.....</i>	<i>31</i>
<b>7.0</b>	<b>FOREST HEALTH .....</b>	<b>31</b>
7.1	<i>Fire Risk.....</i>	<i>31</i>
7.2	<i>General.....</i>	<i>32</i>
<b>8.0</b>	<b>WILDLIFE AND AQUATICS .....</b>	<b>33</b>
8.1	<i>Lynx.....</i>	<i>33</i>
8.2	<i>Aquatic Species.....</i>	<i>34</i>
8.3	<i>General.....</i>	<i>36</i>
<b>9.0</b>	<b>WATER/WETLANDS.....</b>	<b>53</b>
9.1	<i>Wetlands.....</i>	<i>53</i>
9.2	<i>Water Quality .....</i>	<i>55</i>
9.3	<i>Water Quantity.....</i>	<i>62</i>
9.4	<i>General.....</i>	<i>63</i>
<b>10.0</b>	<b>SOILS.....</b>	<b>64</b>
10.1	<i>General.....</i>	<i>64</i>
<b>11.0</b>	<b>MIDDLE BOULDER CREEK CORRIDOR .....</b>	<b>65</b>
11.1	<i>General.....</i>	<i>65</i>
<b>12.0</b>	<b>RECREATION .....</b>	<b>66</b>
12.1	<i>Skier Congestion.....</i>	<i>66</i>
12.2	<i>Nordic Area .....</i>	<i>66</i>
12.3	<i>Jenny Creek Trail.....</i>	<i>67</i>
12.4	<i>Hessie and Fourth of July Area.....</i>	<i>69</i>
12.5	<i>General.....</i>	<i>70</i>

<b>13.0</b>	<b>SOCIAL AND ECONOMIC RESOURCES .....</b>	<b>72</b>
13.1	General .....	72
<b>14.0</b>	<b>TRAFFIC/PARKING .....</b>	<b>72</b>
14.1	I-70 Traffic.....	72
14.2	Nederland Traffic.....	73
14.3	Construction Traffic.....	73
14.4	Ski Area Parking Lots.....	74
14.5	Hessie Trailhead Parking .....	74
14.6	General .....	75
<b>15.0</b>	<b>SCENERY .....</b>	<b>81</b>
15.1	Visibility of Trails for Recreationists.....	81
15.2	Light Pollution .....	83
15.3	General .....	83
<b>16.0</b>	<b>CULTURAL.....</b>	<b>86</b>
16.1	General .....	86
<b>17.0</b>	<b>AIR QUALITY .....</b>	<b>88</b>
17.1	Climate Change .....	88
17.2	General .....	89
<b>18.0</b>	<b>NOISE .....</b>	<b>95</b>
18.1	Construction Noise.....	95
18.2	General .....	96
<b>19.0</b>	<b>CUMULATIVE EFFECTS .....</b>	<b>98</b>
19.1	Concerns about Future Development .....	98
19.2	General .....	98
<b>20.0</b>	<b>DESIGN CRITERIA/CONSERVATION MEASURES.....</b>	<b>101</b>
20.1	Illegal Skier Access at MBC Bridge.....	101
20.2	General .....	102
<b>21.0</b>	<b>OTHER.....</b>	<b>104</b>
21.1	General .....	104

## RESPONSE TO COMMENTS ON THE DRAFT EIS

A Notice of Availability for the Draft Environmental Impact Statement (DEIS) was published in the Federal Register on February 28, 2014. The DEIS was released for public review and comment for a 45-day comment period which extended through April 14, 2014. During the comment period, two public meetings were held: one on March 25, 2014 at the Nederland Community Center, and a second on March 26, 2014 at the Boulder West Senior Center. At these meetings, the Forest Service provided an overview of the NEPA process and the DEIS, answered questions from the public, and accepted comments from the public. The document was discussed via multiple media outlets and was available on the Forest Service website, as well as the project specific website ([www.eldoraeis.com](http://www.eldoraeis.com)). In response to the DEIS, approximately 1,000 comments letters were received from interested parties—both oppositional and supportive. Some comment letters had multiple names attached.

All comment letters were reviewed for substantive comments, and contact information for each commenter was entered into a master database. These substantive comments provide the foundation for which this Response to Comments is based.

Depending on the resource or context, substantive comments were organized into 20 categories. Similar comments were combined to be representative of common themes that were expressed by numerous individuals. Comments that resulted in an update to a particular component of the analysis between the DEIS and Final Environmental Impact Statement (FEIS) are indicated as such.

Names and affiliations of people who submitted comments on the DEIS are provided here. Per Forest Service Handbook 1909.15, Chapter 24.1(3), copies of comment letters received by tribes, Federal, State and local agencies and elected officials are included as Appendix C of the FEIS.

Abramson, Eric	Allis, Nancy	Andrews, Suzanne	Atkins, Tracy
Acheson, Rick	Allum, Gregory	Louise	Austin, Rachel
Ackerly, Spafford	Allured, Dave	Andrews, Tom	Avery, Sara
Adams, Robert	Alsafi, Catherine	Andrews, Wayne	Ayer, Susan
Adcock, Kristin	Ander, Pat	Antonio, Danielle	Bachner, Madeline
Adelman, Todd	Andersen, Clifford	Apt, Alan	Baer, Eric
Adey, Patty and Terry	Andersen, Clifford & Kelli	Aragon, Maria	Baer, Robin
Ahlers, Deborah	Anderson, Cara	Ard, Troy	Baker, John
Albers, Steven	Anderson, Paul	Arefieva, Maria	Baker, Sharon
Albers, Sue	Andes-Georges,	Argenzio, Diane	Baksa, Virginia
Albin, Barbara	Linda	Arguello, Tanya	Baldwin, John
Aleks, James	Andreas, Steve	Armstrong, Phil	Ballard, Julia
Aleks, Mark	Andrew Caffery,	Ashby, John	Balzano, Sharon
Alicia, Grayson	Philip	Askey, Jennifer	Banks, Andrea
		Asnicar, Elizabeth	Banks, Michael

Banks, Mike	Bogart, Scott	Butler, William	Collins, Megan
Barber, Ken	Boisse, Christine	Bynum, Vicki	Collins, Melissa
Bare, Gina	Bolduc, Robin	Byrne, Ed	Connolly, Tom
Barmore, Keith	Bollinger, John	Calderon, Francisco	Considine, Michelle
Barmore, Nina	Bonetti, Donna	Campanelli, Karin	Cook, Brad
Barnes, Cheryl	Boone, Troye	Campbell, Kim	Cook, Kristen
Barrett, Brian	Borri, Patricia	Cares, Alexa	Cooke, Andy, CMC
Bart, Susan	Bos, Monique	Carey, Richard	Boulder
Bartch, Mary	Bottom, Julia	Carlin, Joanne	Cookler, Wendy &
Barwinski, Daniel	Bourgeois, Paula	Carpenter, Carol	Andrew
Bass, Nathan	Bovet, Claire	Carr, Ann	Cooper, Lenora
Batlin, Linda	Bremers, Henry	Cartwright, Robbie	Cooper-Towler,
Beamish, Eric	Brennan, Nicole	Carveth, Cole	Candi
Beardshear, Donald	Brillante, Susan	Cass, Sue	Cowan, Edward
Beckenhaupt, Jim	Brock, Travis	Challinor, Suzanne	Cowles, Regina
Bedell, Cindy	Brocklehurst, John	Chambers, Nicole	Cratty, Bruce
Beecken, Tim	Brode, Meghan	Chase, Linda	Creswell, Richard
Behrens, Carla	Brodhead, Leslie	Chauvin, Robyn	Cross, Allison
Belin, David	Brooks, S	Chazin, David	Cross, Scott
Belo, Michael	Brookstein, Jesse	Cheeseman, Geoff	Crossen, Scott
Benevides,	Brouwer, Shelly	Chesshir, River	Crowley, Lawrence
Christina	Brown, Diane J.	Chicoine, David	Cullinane, Otie
Bennett, Noel	Brown, LM	Chouinard, Leslie	Cummings, Susan
Berg, Evin	Brown, Ronald	Clark, Alfred &	D, Deb
Bianco, Roberto	Bryngelson, Lorie	Grace	Dabrowski,
Bingham, Larry	Buchanan, Todd	Clark, Garry	Clemens
Birkeland, Peter	Buck, Arden	Clarke, Ron	Danby, Diane
Black, Karina	Buck, Betsy	Clifton, Mark	Dantzer, Sandy
Black, Larry	Buehler, Gary	Cobb, Stefan	Dattilo, Garth
Blackwell, Lauri	Bumgartner, Allan	Coblentz, Carol	Davenport, Darren
Blankinship, David,	Bunin, Jane	Cochrane, Deb	Davenport, Deborah
Boulder Area	Burbank, Donna	Coffman, Cameron	David, Elisabeth
Trails Coalition	Burton, Anne	Cole, George	David, Lane
Blaser, Sally	Burton, Bob	Cole, Jeff	Davies, Alexey
Bleuze, Ruth	Burton, Robert	Cole, Jennifer	Davis, Beth
Blidar, Ron	Burton, Will	Collard, Erin	Davis, Eric, Eldora
Bobzien, Logan	Bushnell, Martha	Collins, Gillian	Mountain Ski
Bochert, Debbie	Butler, Patricia	Collins, Lynne	Club

Davis, John	Du Mont, Lyn	Ezell, John	Fritzler, Cyndi
Delano, Caitie	Duckett, Dennis	Faber, Megan	Galbraith, Reid
Dellafera, Maryanne	Dugan, T	Fahey, Barbara	Garcia, Linda
Denissen, Paula	Duggan, Debbie	Fahey, Mark	Garcia, Sandra
Detzel, Kelly	Duggan, Loren	Falkenberg, Julie	Gaums, Betsy
Dewell, Joslyn	Duggan, Timmy	Farrell, Charles	Gauna, Albert
Deyarus, Seley	Duignan, Mike	Feulner, Jackie	Gelden, Ronald
Dicenzo, Kathy	Dumont, Lynette	Fick, Jennifer	Giarratano, Patricia
Dick, Donald	Dunlap, Kinloch	Field, Brian	Giarrusso, Serah
Dick, Martha	Dunlap, Wallace	Field, Edward	Giffin, Peter
Dickinson, Amy	Dunlop, Kinloch	Fields, Michael	Gilchrist, Amber
Dickson, Jody	Duras, Connie	Figgs, Jeffrey	Gillette, Jeanne
Diener, David	Durum, Kathy	Figgs, Terri	Glaeske, Lynne
Dike, Karen	Dutson, Andrew	Finnegan, Pamela	Glasser, Joan
Distasi, Tony	Duty, Priscilla	Fischer, David	Glatz, Kathy
Doan, Trang	Duvall, Jeffrey	Fisher, Laura	Glaze, Mitchell
Dobson, Patricia	E, Katharin	Fisher, Stewart	Glover, Katey
Dombrowski-Sobel, Karen	Eberle, Mary	Fishman, Susie	Glustrom, Leslie
Domenico, Cindy, Boulder County Board of County Commissioners	Edelen, Jeffrey	Fitzgerald, Steve	Godell, Audrey
Donahue, Keahi	Edison, Nancy	Fleming, Barbara	Godin, David
Donharl, Glenn & Margaret	Edwards, Mike	Fleming, Christine	Goin, Wayne
Doucet, Lisha	Eldridge, Gary	Fleming, Dave	Gold, Justin
Dougan, Angela	Ellis, Aaron	Fleming, Dianne	Goolsby, Robert
Dow, Jackie	Ellis, Diane	Flowers, Robert	Goolsby, Sara
Downey, Bill	Ellis, Jayson	Fossum, Paul	Gowan, Mark
Downs, Joseph Paul	Ellis, Michael	Fox, John	Graebeldinger, Nancie
Dowski, Ed	Ellis, Robert and Elizabeth	Fox, Peter	Graen, David
Doyle, Ben, Boulder County	Emerson, Nate	Fox, Rachelle	Graf, Peter
Dressler, Judi	Engelmann, Richard	Frank, Dave	Graham, Pamela
Drost, Emily	Engleman, Nick	Frankel, Leroy	Graham, Susan
Drost, Robert	Enix, Dean	Franks, Scott	Gravies, Kelly
	Enke, Laurie	Free, Pam	Gray, John
	Eppelheimer, Steve	Fretz, Joe	Green, Alice
	Erickson, Norma	Frick, Robert,	Green, Alice
	Evans, Ann	Eldora Civic Association	Greeson, Kathryn
	Everhart, Scot	Friend, David	Gresh, Kathleen
		Frisina, Amy	Griffin, Charles
			Griffin, Fredric

Griffin, Mildred	Henrikson, Susan &	Hsiung, Stephanie	Jones, Ronald
Grimes, Nancy	Carl	Huber, Eric	Jordan, Hans
Grims, Martin	Henshaw, Brent	Hubka, Ruthie	Joyce, Mary
Groenwald, Brenda	Heppner Heppner,	Hundemann, John	Justis, Robert
Groth, Mark	Betsy	Hunt, Catherine	Kaiser, Kathy
Guha, Aloke	Hereim, Mark	Hunter, Brian	Kane, Larry
Guhman, Ed	Herring, Andrew	Hunter, Patricia	Kaplan, Jeremiah
Gully, Wilfred	Herrold, Peter	Huntington,	Katz, David
Gunter, Al	Hershey, Nate	Stephanie	Kava, Donald
Guzy, Christine	Hertzfeld, Teresa	Husson, Michael	Kay Youngson,
Hale, Helen	Foster	Hutchinson, Elaine	Patricia
Hall, Velma	Herz, Julia	Hutchinson, Ross	Keck, Richard
Hallock, David,	Hess, Albert	Ikeda, Ginger	Keeley, Sandra
Middle Boulder	Hess, Kris	Ikler, Bill, Indian	Keller, Greg
Creek Coalition	Hickman, Lois	Peaks Group of	Kelly-Juarez, Peggy
Halpern, Stuart	Hill, Edward	the Sierra Club	Kenny, Kathleen
Halsey, Carol	Hilty, Opal	Isensee, Laurels	Kent, Chris
Hanifen, Mandy	Hockett, Patricia	Ivey, Alexander	Kestrel, Cindi
Hannon, Tim	Hockett-Figgs,	Jackson, Judy	Kietzmann, Joseph
Hansen, Alan	Norma	Jackson, Suellyn	King, Amie
Hansen, Marilyn	Hodie, Jake	Jackson, Tom	Kinnaman, Mr.
Hansen, Paula	Hogan, Tim	Jacob, Jean	M.A.
Harden, Ronald	Holiday, Devin	Jacobsen, Brad	Kintsch, Eileen &
Harlan, Jack	Hollander, Gail	Jacobson, Keith	Walter
Harris, Susan	Hollweg, Karen	Jaffer Jay, Rebecca	Kintzel, Jason
Harris, Victor	Holtz, Sue	Jayroe, Jennifer	Kirschbaum,
Hasselbrink, Robert	Homer, Rachel	Jess, Charles	Michael
Hastings, Neil	Honish, Robert	Jester, Emily	Kirsh Kohler,
Hatcher, David	Hormel, Kate	Johnson, Andrew	Marcia
Hauge, Rosemary	Houchen, Larry	Johnson, Carol	Kitchell, Shannon
Hauser, Karen	Houghton, Melissa	Johnson, Donald	Klaver, Elena
Hayes, Stan	Houston, Persia	Johnson, Donald	Knight, Candice
Hayes, Tom	Howard, Linda	Johnson, Erik	Koepf, Gerhard
Hayes-Budgen,	Howe, Charles &	Johnson, Frandee	Koether, Elizabeth
Shawndra	Joanne	Johnson, Kaelen	Kolva, Ralph
Hazell, Carri	Howe, Christy	Johnston, Gary	Kondreck, Janine
Heiser, Naomi	Hower, Kelsie	Jones, David	Koppe, Robert
Hendry, Dawn	Howrey, Sharon	Jones, Libby	Koschier, Maryanne

Krawczyk, Misty	Laughlin, Diane	Manthy, Robert	McLean, Claire
Kreiselmeier,	Lecinski, Alice	Marengo, Jaquoi	McLuckie, Sandra
Kathleen	Ledbetter, Scott	Marino, Donna	McMannis, Sandra
Kremer, Mark	Lee, Randy, Town	Mark, Brewster	McNamara, Sarah
Kreuser, Deborah	of Nederland	Markevich, Christel	McNeilly, Jerry
Krezek, Michelle,	Parks, Recreation	Marr, John	McVey, James
Boulder County	and Open Space	Martin, James	Meehl, Marla
Board of County	Advisory Board	Martin, Karen	Mehrens, Luke
Commissioners	Leever, Randall	Martin, Patrick	Melamed, Molly
Krueger, David	Levandoski, Greg	Martin, Tim	Melamed, Paul
Krueger-	Liedike, Robert	Martinez, Bonnie	Melendrez, George
Cunningham,	Liel, Abbie	Martinez, Kathy	& Eva
Cosima	Lienau, Maureen	Massey, Cindy	Melnick, Drew
Krueger-Koplin,	Light-Muller,	Matlock, Deb	Melvin, Andrew
Suzanne	Rachel	Mattesen, Betina	Merrill, Dorian
Kuhn, Josh,	Linenfelser, Bret,	Matteson, Steve	Metzger, Linda
Colorado	City of Boulder	Mattingly, Georgia	Michl, Sarah
Mountain Club	Linn, Rebecca	Mayer, Kevin	Michon, Janice
Kurtz, Maya	Linsky, Rick	Mazzitelli, Todd	Miesch, Mark
Kyle, William	Little, Bill	McAdam, Beverly	Millard, Mary
Lackey, Leah	Lockhart, Wade	McAdam, Tom	Miller, David
Laliberte, Greg	Long, Jared	McBryan, Oliver	Miller, Ray
Lamb, John	Long, Judy	McCalip, Casey	Mitchell, Marilyn
Landman, Robert	Long, Leland	McCarty, Margery	Mittl, James
Landsittel, Jeanne	Lopez, Guy S and	McClure, James	Mixon, Geneva
Lane, Sandra	Toni	McCoy, Patricia &	Moen, Georgia
Lang, Randall and	Lopez, Lisa	Michael	Molinero, Cynthia
Abigail	Loughlin, Jason	McDonald, Joe	Monyok, Bob
Langlois, Gerard	Lucas, David	McDougal, Austin	Monyok, Eileen
Langlois, Jamie	Ludlow, Ryan	McDowell, Alana	Moore, Curtis
Lanskey, Marcus	Luke, Eric	McElroy, Tressa	Mores, John
Larsen, Dirk	Lutz, Joan	McGinley, Lynda	Morgan, Paul
Larsen, Jason	Lynd, Del	McGoldrick, Kate	Morley, Eloise
Larsen, Karen	M. Musser, William	McGoldrick,	Morris, Ian
Larson, Ed	MacPhail, Kristyn	Michael	Morris, Jim
Larter, Mark	Makowski, David	McKenna, William	Morrow, Ann
Larter, Tina	Manes, Robert	McLaughlin,	Mosteller, Karen
Lasecki, Timothy	Manno, Sarah	Juanita	Mousavi, Shahla

Mrkvicka, Edward	Paden, Donald	Posern, Sebastian	Roberts and Kohler,
Mueller, Deana	Paine, David	Post, Madison	John and Elaine
Muesser, Barbara	Paisner, Miriam	Pounds, Linda	Roberts, Jerome
Muir, Matt	Papp, Scott	Price, Mary	Roberts, Ryan
Mulder, Joe	Parker, David	Pritsak, Irene	Robertson, Destine
Murphy, Joan	Parker, Joan	Proudfit, Charles	Robertson, Jan
Murray, Margaret	Parks, Stephen	Pscheid, Mark	Rochester, Ingrid
N, Ggiti	Parmenter, Rebecca	Puerta, Jeanne	Rock, Paul
Naber, Dave	Pasque, Janet	Putnam, Carol	Roeckel, David
Nadig, Keith	Pasque, Mallory	Pyle, Laura	Rogstad, Larry,
Nagle, Lisa	Passalacqua, Joe	Raab, Michael	Colorado Parks
Nelson, Grady	Peake, Laura	Raich, Peter	and Wildlife
Nelson, Marcia	Peck, Matt, Indian	Ralston, Aron	Rohloff, Rosalyn
Nelson, Marie	Peaks Wilderness	Ramsey, Amy	Romero, S
Neuenschwander,	Alliance	Randall, Mary	Rood, Steven
Leon	Pelton, Drew	Ray, Chuck	Rooney, Peg
Newens, Adrian	Perreault, Denise	Reed, Dustina	Rose, Kathryn
Newport, Michael	Perrizo, Mira	Rees, Michael	Rose, Mark
Nichols, Ambrey	Perry, John	Rehmel, Darcie	Ross, Susan
Nielsen, Leif	Peters, Robert	Rehne, Veronica	Rothman, Stephanie
Niles, John	Peterson, Linda	Reindel, Alyssa	Rouse, Flip
Nitsch, David	Peterson, Renie	Renouf, Hester	Rowe, Kenneth
Novak, Donella	Pettingill, Nancy	Reshetnik, Michael	Rowland, Peter
Novinger, Matthew	Phelan, Betsy	Reyes, Iris	Rowntree, Steve
Nowicki, Ann	Phillips, Ann &	Reynolds, Jeannie	Rudin, David
Ocean, Chris	David	Reynolds, Richard	Ruedas, Alex
Oconnor, Barbara	Phillips, Lexine	Richards, Mary	Ruskay, David
Oelsner, James	Phillips, Matt	Richardson Sutton,	Ruskay, Morgan
O'Keefe, Shaun	Phillips, Wendy	Carolyne	Rustanius, Patricia
Olsen, Nancy	Phillips, Weslie	Richardson, Dawn	Rutkowski, Monika
O'Reilly, Dana	Pickner, David	Richardson, Mark	S, Alan
Orndoff, Tamara	Pierson, Bill	Richardson, Peggy	Saccardi, Rebecca
Ortlip, Deborah	Pines, David	Richardson, Rhonda	and John
Osborn, Laura	Pinezich, John	Riley, Jason	Sachnoff, Ruth
Osmun, Cindy	Pointeau, Christine	Rivers, Bill	Saddlemire, Connie
Overlie, Michael	Poppe, Herbert	Rivers, Richard	Sagas, Ernesto
Pace, Scott	Porter, Carl	Robbins, Aryana	Salzman, Virgil
Padden, Louise	Porter, Carmen		Sanchez, Starla

Sanders, Laverne	Shirley, Bill	Stankewicz, Lauri	Taylor, Allan
Sarno, Aniello	Siconolfi, Lisa	Stark, Tom	Taylor, Terry
Saunders, Lelia	Silberberg, Susan	Starr, Laurel	Templin, Lydia
Savage, Rebecca	Simon, Carrie	Steffek, Mark	Terbot, Lee
Sawyer, Ethan	Simpson, Richard	Steffen, Keith	Terrill, Bob
Scebbi, Bill	Sims, Donna	Stein, Laura	Terry, Noalani
Scebbi, William	Sisk, Sidney	Steinke, Deanna	Thompson, Zach
Schamel, Raymond	Sitongia, Leonard	Stenflo, Jahnnavi	Tibbets, Linda
Schell, Charlotte	Smarr, Todd	Stephens, Andrew	Tillotson, Lee
Schelling, Andrew	Smith, Bryan	Stephens, Ralph	Towsley, Scott
Schilling, Jeff	Smith, Mary	Stevens, Ron	Trujillo, Jr., Robert
Schlomberg, Kurt	Smith, Rocky,	Stevenson, Tyler	Trujillo, Stacey
Schlupp, Deo	Rocky Mountain	Stewart, Jennifer	Turco, Richard
Schmeh, Derek	Wild	Stewart, Robert,	Turnbaugh, Kay
Schneider, Daniel	Smith, Soraya	United States	Tyrer, Tracy
Schneider, Jan &	Smith, Spencer	Department of the	Ufkes, Gesina
Harold	Smith, Tim	Interior	Unseld, Virginia
Schneider, Mary	Smythe, Charles	Stewart, Tammy	Urban, Donna
Schneider, Sylvia	Snyder, Kathryn	Stockland, David	Urban, Elizabeth
Schroeder, Wendy	Snyder, Warren	Strater, Steve	Urban, Harold
Schuler, Alec	Sodal, Ingvar &	Strobel, Philip, U.S.	Valenza Maggi,
Schultz, Arnold	Sally	Environmental	Gilda
Schultz, Joseph	Sodal, Jofrid	Protection Agency	Van Dyke, Todd
Schutt, Nancy	Soll, Mike	Strohm, Kristin	Van Gerven,
Scott, Rob	Sonnesyn, David &	Strom, Theresa	Claudia
Seago, Brad	Deana	Sullivan, Diane	Van Pelt, Marianne
Sebesta, Alison	Sparks, Kate	Svrace, Anthony	Vanburen, Teague
Serra, Ragen	Speer, Gregory	Swenson, Kyle	Vasquez, Sabrina
Sewald, Michelle	Spenst, James,	Swineford, Stuart	Vaughn, Theresa
Shaffer, Nicole	Eldora Mountain	Szuszwalak, Jr.,	Venezia, Rosa
Shapiro, Bob	Resort	Joseph	Vickery, Anne
Shapiro, Paula	Spenst, Marcia	Tagge, Betty	Victoria, Robert
Shapiro, Robert	Spenst, Taggart	Talbot, Ed and	Vierling, Steve
Shaw, M	Spiecker, Shelley	Terry	Vitulli, Debbie
Sheehan, Claudia	Spitz, Patrice	Talbot, Thomas	Wade, Lyn
Sheets, Dr. Payson	Spoerl, Ronald	Taormina, Steve	Wagner, Terry
Sheets, Francine	Stackpole, Mathew	Tasaday, Laurence	Wallis, Dorothy
Shepard, Randall	Stallard, Constance	Tatreau, Jamie	Walsh, Jean

Wanderer, Pauline	Weissberg, Michael	Williams, Thomas	Yeomans, Gregg
Wang, Sherwood	Wellman, Brant	Wilson, Dan	Yoder, Richard and
Ward, Robert	Wellman, Brenda	Wilson, Sherrie	Lorna
Wasco, Melanie	Wellman, Kathleen	Winfield, Susan	Young, Roy
Watson, Kirk	Welsh, Robin	Wirth, Theresa	Zambrano, Elissa
Waugh, Kym	Wheeler, Jeffrey	Wirz, Ben	Zambrano, Katie
Webb, Kelly	and Signe	Wohlers, Linell	Zimmermann, Jeri
Webel, Suzanne,	Whipple, Cynthia	Wood, Judy	Zinkl, Janice
Boulder County	White, Joel	Woodbury, Ellen	Zinn, Lennard
Horse Association	Wildstein, Adam	Wooster, Lynde	Zsidisin, Robert
Weber, Yvonne	Wiles, Cb	Wright, Patricia	Zurbrugg, Susie
Weiss, Stuart	Wilkes, Michelle	Writz, Gina	

## **1.0 PURPOSE AND NEED**

### **1.1 Disagreement with Purpose and Need**

#### **1.1.1 Visitation at EMR is usually under the comfortable carrying capacity (CCC). DEIS at 3-4. The CCC is only exceeded on some peak weekends and holidays. Id. at 3-5. Overall, the density of skiers on EMR's trails is "desirable from the quality of skiing perspective" and thus "trail crowding is not a common occurrence at EMR". Id. at 3-7. But under the proposed action, the density would increase to 90 percent (id. at 3-19), meaning the trails would become more crowded.**

As discussed in the DEIS (p. 3-19), under the Proposed Action, the density index would increase to approximately 90 percent (from an existing condition of 79 percent). The DEIS (p. 3-19) explains that "a balanced relationship of target and modeled trail density would be a density index of 100 percent." Thus, a density index not equal to 100 percent indicates that the uphill capacity (provided by chairlift infrastructure) does not match the downhill capacity (provided by ski trails). A density index less than 100 percent indicates that the terrain is underutilized due to limited uphill (chairlift) capacity. Thus, by bringing the density index closer to 100 percent, the Proposed Action improves the utilization of infrastructure and the balance between uphill and downhill capacity. An increased density index, which remains under 100 percent, does not create a trail density issue or trail crowding problems.

Additionally, trail crowding is not identified in the Purpose and Need for the proposed projects. As discussed in Chapter 1 of the DEIS (p. 1-3), the Purpose and Need is as follows:

In order to meet the needs and expectations of existing and potential guests and provide a safe skiing experience, the ARP, through its acceptance of EMR's 2011 Master Plan, has identified a need to:

- Improve the reliability of chairlift and terrain offerings;
- Address skier safety concerns during prevalent wind events;

- Provide additional intermediate to expert ability level terrain and a new, more natural terrain experience;
- Provide new and upgraded chairlift infrastructure to improve the quality of the alpine ski experience; and
- Expand and improve on-mountain guest services.

Trail crowding is not identified as a driving issue behind the development of the proposed projects and, as discussed above, trail density would remain within an acceptable range with the implementation of proposed projects.

**1.1.2 Constructing the Placer and Jolly Jug lifts would not reduce lift lines at the base because to get to terrain served by these lifts, snowriders would still have to ascend from the base using the proposed new Challenge lift. It will have only a slightly higher uphill capacity than the existing Challenge and Cannonball lifts now have combined. See DEIS at 2-46.**

The new Challenge chairlift would have a capacity of approximately 3,000 people-per-hour (pph). The existing Challenge chairlift has an uphill capacity of approximately 1,800 pph and the Cannonball has a capacity of approximately 1,127 pph. Combined, the existing Challenge and Cannonball chairlifts have a capacity of approximately 2,927 pph. However, these chairlifts rarely operate simultaneously. Both of these chairlifts are old, slow, and pose safety risks for users, particularly during wind events. Replacement of the Challenge and Cannonball chairlifts is included in the Proposed Action to improve the reliability of chairlift infrastructure, address skier safety concerns during prevalent wind events, and provide upgraded chairlift infrastructure to improve the quality of the alpine ski experience, as stated in the Purpose and Need.

The Purpose and Need for the proposed projects is discussed in Chapter 1 of the DEIS (p. 1-3), and above in Response 1.1.1, and does not include the reduction of lift line wait times. Lift line wait times are not currently a concern and would not likely increase with the implementation of proposed projects.

**1.1.3 The expansion into Middle Boulder Creek, as in Option 2, however, is unacceptable. I appreciate the effort to add more skiable terrain, but expanding into this area is not the way to do it. The expansion would only add 400 vertical feet, dropping into a critical wetland habitat. Furthermore, the runs added will not be of very high quality anyways. The two eastern runs merge at the same time they are passing the base of the Indian Peaks lift before immediately coming upon the base of the new proposed lift. The two western runs must each cross the current Corona road, before finishing at the bottom only to traverse back to the base of the proposed lift on another road. As you can see, this is anything but a wide open high quality vertical addition. Also, the proposed lift doesn't even carry the skier back to the top. The skier must descend and ride up another lift just to get back to the top!**

As disclosed in the DEIS (p. 3-312), there would be approximately 1.41 acres of indirect impacts to wetlands through forested overstory removal, including 0.11 acre of the Corona fen, associated with the proposed Placer chairlift line and associated ski trails on the slope above Middle Boulder Creek.

Regarding the proposed Placer terrain, the commenter accurately notes that the eastern trails (P-3 and P-4) would merge, however, they would merge below the bottom terminal of the Indian Peaks chairlift. The width of the trails at this convergence would adequately accommodate users from both trails. The western trails (C-3, C-4, P-5 and P-6) would cross the Corona Road before descending to the base of the proposed Placer Express chairlift. Skiers on the upper trail segments (C-3 and C-4) would have an option to follow the Corona Road to the Corona chairlift, or continue to the Placer Express chairlift. Thus the intersection with Corona Road provides circulation options for skiers. The intersection would be signed on Corona Road and trails C-3 and C-4 to alert skiers to cross-traffic. Below Corona Road, trails P-5 and P-6 would descend to the north and return to the base of the Placer Express chairlift via an egress trail. The egress trail to the bottom terminal of the Placer Express chairlift would not be a road.

As discussed in the DEIS (p. 3-18), the Placer terrain would help to address the deficit in intermediate terrain at EMR, and is specifically designed to address susceptibility to wind events. The Placer Express chairlift and terrain would be less exposed to wind, increasing the likelihood that this terrain would remain open during wind events. As discussed in the DEIS (p. 3-19), the Placer Express chairlift was designed to avoid the highest elevations and ridges to stay out of the highest winds. In order to improve operations during windy conditions, this chairlift would not carry skiers back to the top of the mountain where winds are typically higher. The additional supply of terrain during wind events would improve the recreational experience and spread out skiers, thereby reducing safety concerns.

**1.1.4 Stranded skiers: DEIS p. 3-10 states that skiers often get stranded below the Corona Road toward Middle Boulder Creek, and also below the Jolly Jug run toward Jenny Creek, in part because the fall lines encourage skiers to head into these areas. DEIS at 3-10. EMR should install ropes and signs, if that has not been done already, and patrol the area, making clear that skiers going beyond these areas will be leaving EMR and have no easy way to return. The proposed north side expansion would encourage skiers to ski down to Middle Boulder Creek, which would adversely affect wildlife movement. See further discussion in section V below. The Jolly Jug lift would not “provid[e] access to the area where people most often get stuck”. Id. at 3-20. Thus rescuing stranded skiers is not a reason to construct the proposed two new lifts. If skiers headed to, say, Lost Lake to the west-northwest, would that justify expansion in that direction?**

The ski area boundary is currently marked with ropes and signs, but these measures do not always successfully deter skiers from exiting the ski area. The proposed Placer chairlift and associated terrain would provide developed terrain to the north of the current SUP boundary and a means to return to the rest of the ski area, thus reducing ski patrol efforts for stranded skiers in this area (DEIS p. 3-20). While the layout of the Jolly Jug chairlift and terrain in the Proposed Action would not provide access to the area where skiers most often get stuck, the developed terrain and chairlift would reduce the likelihood of

stranded skiers pulled towards the “Deadman’s Gulch” Nordic Trail (DEIS p. 3-20). This chairlift and terrain would also facilitate ski patrol access to areas beyond the operational boundary. Additionally, while the layout of the Jolly Jug chairlift and trails in the Proposed Action would not address all concerns of stranded skiers in this vicinity, the alignment of the chairlift and terrain in Alternative 3 would more thoroughly address these concerns. As stated in the DEIS (p. 3-28), “under Alternative 3, the bottom terminal of the Jolly Jug chairlift is located in a low spot, thereby maximizing the chances of collecting skiers in this area. Thus the Jolly Jug chairlift and associated terrain would minimize lost or stranded skiers and reduce the ski patrol search effort in this area.”

The Placer and Jolly Jug chairlifts were not proposed in order to address issues of stranded skiers. Both the Placer and Jolly Jug terrain would address a need for additional intermediate terrain and improve the recreational experience during wind events (DEIS p. 3-17 and 3-18). The associated reduction in instances of stranded skiers would be a beneficial side-effect of these proposed activities.

**1.1.5 As a long time skier at Eldora, and being very familiar with their usual trail conditions, which require extensive and prolonged snowmaking in most years, I also question how well those proposed south and southeast aspect runs in the proposed Jolly Jug area will hold enough natural or man-made snow for good skier experiences. The SW/S/SE aspects of these trails are not shaded by adjoining terrain and will be in full southerly aspect sun at most times except very late in the day, and will be exposed to high winds as well. Even now, one of the primary reasons that the existing Eldora Nordic Center groomed trails, and the USFS Jenny Creek Trail, in that vicinity, hold any snow in the winter at all is due to the narrowness of their single and double track widths. Clearing SW/S/SE aspect slopes to be wide enough and long enough for alpine runs will result in close to zero natural snow retention in most winter seasons of average or below average snowpack.**

As discussed in the DEIS (p. 2-7), snowmaking is proposed on all new ski trails. Additionally, this area is relatively protected from the prevailing winds. With the compaction of skiers and groomers, it is expected that this area would maintain snow.

The proposed Jolly Jug terrain meets the stated Purpose and Need to “provide additional intermediate to expert ability level terrain,” (DEIS p. 1-3). The Jolly Jug terrain in Alternative 2 would add approximately 35 acres of intermediate terrain (DEIS p. 3-17). The Jolly Jug terrain in Alternative 3 would add approximately 62 acres of intermediate terrain (DEIS p. 3-25). Additionally, an important component of the Jolly Jug terrain under both alternatives is the addition of tree and gladed skiing areas (approximately 16 acres under Alternative 2 and 35 acres under Alternative 3). The intermediate terrain and tree and gladed skiing areas included in the Jolly Jug pod would effectively meet the stated Purpose and Need.

**1.1.6 “The overall purpose of the proposed projects is to improve the guest experience and skier safety at the resort” as stated by EMR. It seems that if improving the guest experience was important, the ski resort would not routinely close one or two of the chair lifts during the non-peak periods, usually the weekdays. The understanding of the frustrated skiers is that there are not enough skiers to warrant the extra cost of workers, utilities and/or slope**

**maintenance to keep all of the lifts functioning on weekdays. Interestingly the proposal states that “High ski trail densities can feel uncomfortably crowded and affect the quality and safety of the recreation experience.” Why then are all of the chairlifts not available except on the weekends? Thus the stated purpose of the EMR is in question. Also, skier safety should be important, but not more important than the safety of the people in the Town of Eldora who regularly walk, jog and bike on Eldorado Avenue, the road which Alternative 2 proposes for construction traffic, ongoing maintenance access and emergency vehicles.**

The Indian Peaks chairlift does not operate daily because the terrain accessed by this chairlift can also be accessed via the Challenge/Cannonball and Corona chairlifts. As discussed in the DEIS (p. 1-5), “the Indian Peaks area at EMR is popular with intermediate ability level skiers and as such, it has higher ski trail densities than is ideal. High ski trail densities can feel uncomfortably crowded and affect the quality and safety of the recreation experience.” The high ski trail densities referenced here are due to the limited supply of intermediate level terrain, not the operation of chairlifts. In fact, the operation of the Indian Peaks chairlift would potentially increase the density of skiers in this area. The need for additional intermediate terrain at EMR is a driving purpose for the project (DEIS p. 1-5).

None of the action alternatives analyzed in the DEIS would endanger the safety of recreational users on Eldorado Avenue. The Proposed Action would lead to additional traffic on Eldorado Avenue (DEIS p. 3-49) due primarily to construction; however, Eldorado Avenue is a public road. Adherence to conventional traffic laws and safety protocols would minimize any potential risks of travel on this road.

**1.1.7 On-Mountain facilities - I don’t believe that the number of clientele at EMR justifies both the upgrade of The Lookout and the addition of the new Challenge Mountain facility. One or the other would probably suffice, but I don’t think it’s a problem from the standpoint of the EIS. The question here is, again, The Lookout is currently not fully operational 7 days a week, so what will they have open and when? Why add new facilities if you don’t even fully utilize all the ones you currently have? Of course, The Lookout is way past due for an upgrade. Any improvements to it would be greatly welcome, as long as they still intend to keep at least the restrooms open all the time.**

As discussed in the DEIS (p. 1-6), “the Lookout facility was built in 1972, has an inefficient layout and is undersized for existing visitation.” Its small size and condition likely limit the demand placed on this structure (DEIS p. 3-10). The Lookout facility is currently open every day with barbeque and fresh food available during weekends, holidays, and other high-use periods. The upgraded facility included in both action alternatives would include a food and beverage operation open every day throughout the season. As determined in the 2011 Master Plan, there is currently a deficit of approximately 925 seats across the base area and on-mountain facilities (DEIS p. 3-11). The improvement of on-mountain guest service facilities at EMR under the action alternatives would improve the recreational experience (DEIS p. 3-21).

**1.1.8 Overall we believe installation of the Placer chairlift is unnecessary and would create more of a negative impact on the area's recreationists than benefit. All but about 400 feet of this proposed lift would parallel the existing Indian Peaks lift and the resort's needs to increase terrain offerings can be met by developing ski runs in the Placer, Bryan II, Salto, and Moose Glades. For example, 32% of the resorts current terrain falls within the intermediate category. This is only 3% less than the stated desired level of 35%. Additionally, 33% of the current terrain is expert, only 2% less than the desired level of 35%. Lastly, advanced intermediate terrain is currently at 7% while its desired state is 15%.**

As disclosed in Table 3A-2 of the DEIS (p. 3-7), EMR has a shortage of intermediate, advanced intermediate, and expert terrain. The commenter incorrectly referenced Table 3A-2; expert terrain represents 4 percent of the overall terrain capacity. The proposed Placer terrain would address this shortage, and bring the distribution of EMR's terrain more in line with market demand. Under Alternative 2 there would be a 2 percent surplus of intermediate terrain (compared to a 3 percent deficit under existing conditions) and only a 1 percent deficit of advanced intermediate terrain (compared to an 8 percent deficit under existing conditions). The Placer terrain would add approximately 15 acres of intermediate terrain, 7 acres of advanced intermediate terrain, and 16 acres of expert terrain (DEIS p. 3-18). The Corona terrain, located within the existing ski area operational boundary, would add approximately 8 acres of intermediate terrain, 25 acres of advanced intermediate terrain, and 52 acres of expert terrain (DEIS p. 3-18). In total, Alternative 2 would add approximately 23 acres of intermediate, 32 acres of advanced intermediate, and 68 acres of expert terrain to the back-side of EMR.

Alternative 3 does not include the Placer Express chairlift and associated terrain, and includes the development of additional ski trails within the existing northern SUP boundary. Under Alternative 3 there would be a 4 percent surplus of intermediate terrain (compared to a 3 percent deficit under existing conditions) and a 2 percent deficit of advanced intermediate terrain (compared to an 8 percent deficit under existing conditions). The Corona terrain would add approximately 12 acres of intermediate terrain, 47 acres of advanced intermediate terrain, and 125 acres of expert terrain (DEIS p. 3-26). The Indian Peaks terrain would add approximately 4 acres of intermediate terrain (DEIS p. 3-26). In total, Alternative 3 would add approximately 16 acres of intermediate, 47 acres of advanced intermediate, and 125 acres of expert terrain to the back-side of EMR. Much of the acreage of Corona terrain in Alternative 3 is associated with modifications to existing tree and gladed skiing areas.

Additionally, the Placer chairlift and terrain is specifically designed to address susceptibility to wind events, and would improve the terrain offerings when the Corona and/or Indian Peaks chairlifts are forced to close (DEIS p. 3-18). The development of trails in the Placer, Bryan II, Salto, and Moose Glades, as proposed in Alternative 3, would not improve the recreational experience during wind events as effectively as the Placer terrain, because this terrain is exposed to the wind and the Corona and Indian Peaks are more susceptible to wind closures than the Placer Express would be. While the upgraded Corona chairlift would have a lower likelihood of wind closure, this terrain is still more exposed to the wind than the Placer terrain.

- 1.1.9 Management claims that they require this expansion and improvement to the existing infrastructure in order to remain competitive with other ski areas. In fact, since this ski area serves the Front Range which has no other option for skiing if people want to avoid the traffic jams on I-70, it basically has a captive audience. According to the statistics released by the ski area, Eldora Ski Area visits continue to grow steadily with the most recent 10-year average of 271,000 annual visits as compared to the previous 10-year average of 170,000 annual visits. In the 2012-2013 ski season, they set a record for visits in spite of less than average snow depth. This is not a ski area struggling to survive in a competitive market.**

Whether or not there is a market-driven need for development at EMR, the proposed projects would address identified needs at the ski area, as discussed in Chapter 1 of the EIS (DEIS pp. 1-3 to 1-7). The proposed projects would improve the recreational experience and address vegetation management and forest health conditions at EMR. A need to remain competitive in the ski area market is not identified in the DEIS.

While market competition is not an identified need in the DEIS, it is anticipated that the implementation of proposed projects would increase visitation to EMR. As disclosed in the DEIS (p. 3-13), under Alternative 1 there would be an anticipated increase in guest visitation of approximately 5,993 skier visits per season. Under Alternative 2 there would be an estimated 77,432 additional skier visits per year, and under Alternative 3 there would be an estimated 47,838 additional skier visits. It is estimated that approximately 85 percent of EMR's current visits originate from the Front Range (including Boulder County and south towards Denver), this is not anticipated to change under any of the alternatives.

## **1.2 Agreement with Purpose and Need**

- 1.2.1 The upgrades to facilities and infrastructure in these alternatives will complement the vegetation management plans to improve forest health by stopping the spread of noxious weeds, among other plans. This is an important feature of alternatives 2 and 3, as the no action alternative would provide for no plans for vegetation management. When considered in both recreational, forest health, and economic terms, alternative 1 simply does not meet any of the area's needs and thus should not be considered.**

The commenter has accurately referenced components of Alternatives 2 and 3. As a true "no action alternative," Alternative 1 would not include any forest health projects beyond what is currently practiced by EMR.

- 1.2.2 One point that I'd like to highlight is rider safety, particularly for our kids. Safety perhaps doesn't receive a great deal of direct mention in the documentation. In addition to the ability of modern high speed lifts to better withstand wind events, they're also easier for little ones to load and unload. How many times have you seen young children get taken out at a load station or load a lift with their rear ends hanging off? Some children are able to ski the upper mountain at a very young age. Let's take advantage of newer technology to make their early ski experiences as fun and safe as possible.**

The Forest Service agrees that the safety of guests recreating at EMR is an important consideration in this analysis. Skier safety is explicitly identified in the Purpose and Need for the Proposed Action (DEIS p. 1-3). The new chairlifts and chairlift improvements included in Alternatives 2 and 3 would particularly address safety concerns because they would be better able to withstand wind, be more comfortable for lower ability level skiers, and offer a smoother load and unload experience than the older fixed-grip chairlifts (DEIS p. 3-16).

**1.2.3 We are encouraged that the DEIS for the proposed Eldora ski area projects includes an Alternative 3, consisting of internal upgrades and a modest expansion to the south, but no expansion to the north. The DEIS notes that this alternative is in response to several issues raised both internally by ARP and externally by the public. We would like to point out that, according to the 2011 Master Plan (and confirmed in personal communication with EMR management), the ski area can achieve half its desired increase in its Comfortable Carrying Capacity (CCC) with internal upgrades and the southern expansion only. Thus, without encroaching on a likely wildlife corridor along Middle Boulder Creek (Alternative 2), EMR can do plenty to maintain its competitiveness.**

Alternative 3 is analyzed in detail in Chapter 3 – Affected Environment and Environmental Consequences, of the EIS. Alternative 3 projects are described in Chapter 2 – Description of Alternatives.

**1.2.4 The bridge proposed in Alternative 2 would also provide much needed emergency access and egress options from the resort if the only access road (Shelf Road) becomes impassible which has been proven historically. If the Shelf Road was to avalanche again (2003) and cut off access to the resort, there would be a way to remove people from the resort using ski trails to the bridge and safe way to get equipment or additional personnel to the ski area. Search and rescue efforts originating from the ski area most commonly result in the area of the Jolly Jug trail, the southern boundary, and the Corona and Indian Peaks areas.**

The Forest Service has considered this type of information in their analysis of the bridge included in Alternative 2.

### **1.3 Data to Validate Purpose and Need**

**1.3.1 It is at best unclear how the proposed new lifts would help during wind closures. Would the Placer lift be any less sensitive to wind closures than the Indian Peaks and Corona lifts? The DEIS (p. 1-17) dismisses the need for studies on how wind would affect the proposed new facilities. How then do we know that the Placer lift and the upgraded Corona lift would be less affected by wind than the existing lifts? This is especially troubling because wind data from a private weather station at the far west end of the Town of Eldora, not far from the proposed location of the Placer Lift's bottom terminal, was provided to the Forest Service and the company contracted to prepare the EIS, SE Group. This data, from late 2012 and early 2013, shows many days each month with peak winds over 50 MPH and a few days over 80 MPH. Why was this data not used? (1 Data is available from this location going back to 2010. Additional data needed for an adequate wind study would include wind direction. However, the data sent to the Forest Service and SE Group, from a location only a short distance away from the bottom terminal of the proposed Placer Lift, gives a good**

indication that this proposed lift would experience wind problems similar to those of the existing lifts.) The EIS should present data on when in recent seasons winds have caused lifts to be shut down, and for how long, so the public can see how much of problem wind is at EMR. The Placer lift would be on a north-facing slope. Strong winds in the winter are said to be primarily from the north to northwest (id. at 3-8), but are more likely west to northwest. (2 Again, good data would determine the prevailing wind direction.) In either case, but especially the latter, wind would probably sway the chairs on the proposed Placer lift just as much as the other lifts. Currently, the Corona, Indian Peaks, and Cannonball-Challenge lifts are subject to closure during periods of high winds. DEIS at 3-6. Even if it were somehow more wind-resistant, the proposed Placer lift would not help during periods of high winds when the Corona and Indian Peaks lifts are shut down, as there would still be no way to get back to the top via the Placer lift. But making the Corona and Challenge lifts more wind-resistant, if that can be accomplished, would do much more to address the problem of wind closures than would constructing the Placer lift.

As discussed in the DEIS (p. 3-19), the Placer Express is “aligned to avoid the highest elevations and ridges to stay out of the highest winds.” Detachable chairlifts are also heavier and less easily impacted by wind. The existing Indian Peaks and Corona chairlifts are located in exposed alignments, and the old, lightweight fixed-grip infrastructure is easily blown around (DEIS p. 3-5).

The Forest Service determined that there is not a need for wind data to validate the Purpose and Need because EMR proposed the project locations based on an operational understanding. EMR understands the prevailing wind direction and the wind speeds in the area. EMR operates the ski area with these factors in mind and used this knowledge to develop their proposed project locations. The wind data provided to the Forest Service and SE Group was not used in the analysis because it was collected approximately 0.5 mile away from the bottom terminal of the proposed Placer Express chairlift, in the Town of Eldora. There is a ridgeline between the proposed project location and the site where the data was collected which could create notably different conditions. While wind speed data was not collected for inclusion in the DEIS, data from EMR regarding wind closure incidents was included in the DEIS (p. 3-9) and demonstrates that wind is an issue at EMR.

Regarding skier circulation during wind events, if the Indian Peaks chairlift were forced to close, skiers utilizing the Placer terrain could return to the base area and front-side of the mountain via P-1 and Four O’Clock trail. Additionally, the replacement of the Corona and Challenge chairlifts, included in Alternatives 2 and 3, would improve access and terrain availability during wind events. The replaced chairlifts would be heavier, detachable chairlifts that would be less susceptible to wind (DEIS p. 3-16).

**1.3.2 The DEIS describes increased trail densities on the front side of EMR when any of the four lifts subject to wind problems are closed down. Id. at 3-8 through 3-9. However, visitation is likely to be less during periods of high winds because of the possible lift shut downs and because many skiers do not want to ski during these periods. The DEIS admits that: wind closures drive some skiers to leave the resort completely. Instead of skiing limited terrain on the front-side, some skiers may choose to sit inside and wait for the weather to improve, or**

**leave for the day. News of wind closures could even cause some skiers to turn around before they have even arrived... Id. at 3-10. See also id. at 3-27. Therefore, the effect of wind closures would be considerably less than the 60 percent reduction in CCC stated at id. 3-9. Upgrading the Challenge lift, as proposed, would solve much of the problem of increased density on the front side of EMR during wind closures, if the new Challenge lift would indeed be less susceptible to such closures, as stated at DEIS p. 3-16. However, while the “enclosed top terminal” (ibid.) might protect the upper terminal, it would likely not reduce the effect of wind on the chairs below this terminal. Another alternative to address wind problems would be to upgrade the Indian Peaks lift. This must be considered.**

If the Challenge, Indian Peaks, and Corona chairlifts are forced to close, the effective CCC of EMR is reduced by 2,700 guests, from 4,250 to 1,550 guests (DEIS p. 3-9). The DEIS acknowledges that some skiers would be deterred by the weather and would stay off of the mountain (DEIS p. 3-10). However, it is reasonable to expect that when the Challenge, Indian Peaks, and Corona chairlifts are forced to close, there are increased densities and mixed ability levels on the available terrain (DEIS p. 3-9). Regardless of the specific changes to density, the susceptibility of existing chairlifts to wind closures results in a degraded recreational experience during wind events. Whether skiers are exposed to increased densities on limited terrain or decide to sit in the lodge or leave the mountain, their recreational experience was negatively impacted.

Regarding the proposed Challenge chairlift replacement, the top terminal location is the most wind-exposed portion of this chairlift and the enclosed terminal structure is expected to not only reduce instances of wind closures, but also improve unloading conditions. It can be difficult for guests to unload the chairlift into strong winds, as the wind pushes them back towards the moving chairlift, which could hit them if they are not able to move away quickly enough. The terminal enclosure would address these concerns.

While the replacement of the Challenge chairlift would partially address density concerns during wind events, as discussed in the DEIS, the other proposed chairlifts and chairlift replacements would further improve the recreational experience during wind events. The replacement of the Challenge chairlift would improve the recreational experience by providing more reliable access to front-side terrain, but it would not keep the back-side open, which is where many of the density problems originate. The Placer Express chairlift and replaced Corona chairlift would operate more consistently during wind events and provide access to back-side terrain. The availability of this terrain is important to reduce skier densities during wind events.

As described in Chapter 2 of the DEIS (p. 2-42), an upgraded Indian Peaks chairlift was not analyzed as an alternative because nearly all of the terrain served by this chairlift is also accessible from the Corona chairlift.

## **2.0 ALTERNATIVE**

### **2.1 Maximum Expansion Alternative 2 & 3 Combination**

- 2.1.1** Alternative 2, the proposed action, appropriately Incorporates many important needs of the resort for future sustainability, as reported by the draft EIS: additions and upgrades to the chairlift network, expansion of snowmaking coverage, expanded guest facilities (restaurant), expanded parking, vegetation management projects, and an amendment to the forest plan. These improvements are both important and necessary. Alternative 3 has elements with merit as well, to include a better chair lift configuration for Jolly Jug, which is better suited to meet the identified need and purpose statement. The chair lift in this alternative is substantially longer and creates more access and opportunity for skiers of all skill levels, better serving needs in general. However, Alternative 2 addresses the important Placer lift needs. These two approaches (alternatives 2 and 3) need not be mutually exclusive-the ARP could revise the recommended action to take the best elements of both alternatives and incorporate them into one alternative. In this way, all of the elements of infrastructure improvements, safety modifications, guest experience, and vegetation management could be addressed to the satisfaction of both Eldora Mountain Resort, the ARP, and the skiing public at large.

The decision maker has the opportunity to select any project component or combination of project components from any alternative that was analyzed in the DEIS when he makes his decision on this project.

### **2.2 Infill Only Alternative**

- 2.2.1** **II. THE PROPOSED IN-FILL ALTERNATIVE AND OTHER REASONABLE ALTERNATIVES HAVE NOT BEEN SERIOUSLY CONSIDERED.** Most of the undersigned also endorsed the scoping comments of the MBCC, which advocated no increase in the SUP area, and instead meeting the need for more facilities within the existing SUP area. Approving and implementing the “in-fill” alternative would avoid most of the impacts from either of the two action alternatives that were fully analyzed in the DEIS. It would also ensure consistency with the Forest Plan and obviate the need for any Plan amendment. 4 See Attachment 1 for a description of MBCC’s in-fill alternative, and Attachment 2 (sent separately) for a map of this alternative. The reason for not considering this alternative is stated as follows: Because Alternative 3 in this EIS includes a SUP boundary adjustment that differs from the EMR 2011 Master Plan, should that alternative be approved through this process, the 2011 Master Plan would need to be amended to reflect the correct SUP boundary. For this reason, alternatives to the Proposed Action were not created in response to this specific concern and request. DEIS at 2-40. This response to our request for consideration of the in-fill alternative makes no sense. No master plan amendment would be required if an in-fill alternative was analyzed and approved. Just because something is described in the master plan does not mean it must be built, or even that it will be built. Indeed, there are several components in the Master Plan that are not proposed in the current project.<sup>3</sup> Under the Council on Environmental Quality Regulations implementing the National Environmental Policy Act, “agencies shall... rigorously explore and objectively evaluate all reasonable alternatives”. 40 CFR 1502.14(a). The in-fill

**alternative is reasonable because it could be implemented; in fact, it could be done much more easily than either of the action alternatives because extensive tree removal and glading, and for the most part, expensive mitigation measures, would not have to be done. See section IV below. A potentially serious safety problem would be avoided. See section VI below. (ATTACHMENT 1 Description of Alternative 4- “Infill Alternative” Proposed by Middle Boulder Creek Coalition April 7, 2014 Our Infill Alternative fulfills the purpose and need stated in the DEIS by: 1) Replacing the Challenge and Cannonball lifts with a 6-person detachable type lift. 2) Replacing the Indian Peaks lift with a detachable 4 or 6 person chairlift. This would better withstand wind and eliminate the need for the Placer lift, and would keep the ski area within the SUP boundary that was extended in 1997. 3) Replacing the existing Corona lift with a detachable 6-person chairlift. 4) Creating additional intermediate and advanced intermediate terrain within the current SUP. This can be accomplished by adding the following runs: C1 and C3 as indicated on DEIS Figure 2 (Alternative 2, Proposed Action), which also shows Runs P1 and P3 leading to the bottom of Indian Peaks lift. The lower part of the Indian Peaks lift line could also be widened to provide more intermediate terrain. See accompanying map. 5) Expand and improve on-mountain guest services and parking as described for the proposed action in the DEIS. We feel that the additional trails indicated above will increase the acreage of intermediate and advanced intermediate terrain but will not significantly impact wildlife, slope stability, or Middle Boulder Creek, as the proposed action would do.**

The Forest Service acknowledges the concerns expressed by the commenter; and the DEIS has disclosed the impacts of the project elements of the action alternatives. Chapter 2 of the DEIS discusses the Infill Alternative and numerous reasons for its elimination from detailed analysis (DEIS p. 2-39). As discussed in the DEIS, resource concerns related to the Placer Express chairlift and the Middle Boulder Creek corridor (including wildlife impacts, slope stability, and water quality in Middle Boulder Creek) were addressed through the creation of Alternative 3, which does not include additional development to the north of the current SUP boundary. Alternative 3 includes additional trails on the back-side of EMR within the current SUP boundary. No key issues were identified associated with the Jolly Jug area, and thus these projects, and the associated SUP boundary adjustment, were carried forward into detailed analysis (DEIS p. 2-41).

According to 40 CFR 1502.14, agencies must “rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.” Through the creation of Alternative 3, the DEIS analyzes all reasonable alternatives that meet the stated Purpose and Need and respond to identified issues. Refer to Chapter 2 – Description of Alternatives for a discussion of seventeen other alternatives that were considered by the Forest Service but not analyzed in detail (DEIS p. 2-39). As discussed above, there were no resource issues identified regarding the proposed Jolly Jug pod and the southern SUP boundary adjustment warranting the development of a strictly infill alternative.

Additionally, the DEIS addresses concerns about consistency with Forest Plan language regarding operations at EMR (DEIS p. 2-40). Because the Proposed Action is contained in the current 2011 Master Plan, these projects would be consistent with the Forest Plan.

The decision maker has the opportunity to select any project component or combination of project components from any alternative that was analyzed in the DEIS when he makes his decision on this project. Thus, there was no reason to develop a stand-alone infill alternative.

## **2.3 Alternative Placer Chairlift Designs**

**2.3.1 Another reasonable alternative is to upgrade the Indian Peaks lift to make it less susceptible to high winds. However, this alternative is dismissed because EMR “would not financially commit to a new chairlift in that location”. DEIS at 2-42. How can EMR not be willing to replace the Indian Peaks lift, but have the money to construct two new lifts? Upgrading the Indian Peaks lift is a reasonable alternative and must be fully considered. EMR does not have the right to dictate which alternatives will be considered. Just because an alternative is not desired by a proponent does not mean it should not be considered, because under the regulations implementing NEPA cited above, all reasonable alternatives must be considered, even ones not necessarily convenient for the applicant. Note further that guidance from the Council on Environmental Quality specifically addresses this situation: “Q 2a. Alternatives Outside the Capability of Applicant or Jurisdiction of Agency. If an EIS is prepared in connection with an application for a permit or other federal approval, must the EIS rigorously analyze and discuss alternatives that are outside the capability of the applicant or can it be limited to reasonable alternatives that can be carried out by the applicant? A. Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is “reasonable” rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.” (Questions and Answers about the NEPA Regulations, 46 Fed Reg 18026, March 23, 1981; emphasis added.)**

See Response 1.3.2. The replacement of the Indian Peaks chairlift was considered but eliminated from detailed analysis in the DEIS. As discussed in the DEIS, “the Corona chairlift can serve all of the terrain that Indian Peaks serves with the exception of two ski trail segments on the east end of the back-side below Corona Road, “ (DEIS p. 2-42). Due to the overlap of terrain access provided by the Corona and Indian Peaks chairlifts, it would not be a practical planning solution to upgrade both of these chairlifts. This project would not make common sense from a technical and economic standpoint. EMR would not financially commit to this alternative because it would not meaningfully improve the terrain availability and recreational experience at EMR, and is thus not a practical alternative nor does it meet the Purpose and Need for the project.

## 2.4 General

- 2.4.1 This expansion creates an opportunity to improve summer access to the Indian Peaks trail system via a trail connection from the base to Lost Lake. It appears that much of the connection can already be made on existing roads and change in elevation is minimal. Benefits include less vehicle traffic through the Town of Eldora, better emergency access to the trail system, reduced parking congestion along Hessie Road, leveraging existing parking facilities leading to reduced demand for new facilities on Hessie Road, better ability for trail users to use RTD (one-seat ride as opposed to transferring to the shuttle at the Nederland High School), access to flush toilets at the parking area, and traffic reduction along Hessie Road. Questions to be explored include: i. What additional impacts/issues would be created from users illegally leaving the Lost Lake access trail? ii. Is there private property that would need to be accessed? iii. Would this allow or induce overuse of the Indian Peaks trail system? iv. Can this analysis be done within the current EIS or would a separate process be preferable, such as a Forest Plan amendment?**

This comment is beyond the scope of this analysis. As discussed in the DEIS, the accommodation of dispersed recreation at the EMR base area is not considered in this analysis because: “1) This concept does not address the identified Purpose and Need, 2) the EMR parking lots are located on private land and thus are not under the jurisdiction of ARP, and 3) the ARP believes this issue is beyond the scope of this EIS and better addressed through trailhead management,” (DEIS p. 2-44).

- 2.4.2 I would love to see the management plan allow for use of bicycles. The West Magnolia trail system is a real treat to ride, especially in the summer when warm temps push riders from 5200 feet to higher elevations. Having purpose built trails to allow users to recreate in these beautiful areas would be highly desired.**

As discussed in the DEIS (p. 2-44), the addition of mountain bike trails is beyond the scope of this analysis and would not address the Purpose and Need.

- 2.4.3 We do not believe the DEIS demonstrates a purpose and/or need for a bridge over Middle Boulder Creek and associated use of County Road 130. The DEIS fails to consider a reasonable alternative to accessing the bottom of Placer Lift. It appears the Ski Area could instead construct a service road from the existing Corona Lift access road down to the base of the newly proposed Placer Lift. Straight-line distance between the existing road and the Placer Lift base is approximately 1,600.**

As discussed in the DEIS (p. 2-40), an access road from the existing Corona Road to the vicinity of the Placer Express chairlift was eliminated from detailed analysis because the extension of this road would create “a considerable amount of additional vegetation removal and ground disturbance.” A preliminary sketch of this road is contained in the project file. The road would be approximately 4,500 feet long and the road prism would be an average of approximately 42 feet wide due to necessary cut and fills. The construction of an access road in this area would likely result in greater erosion and water quality concerns that could be avoided through the use of the construction bridge over Middle Boulder Creek.

**2.4.4 A Summer Recreation Element should be included as an Identified Purpose and Need in the Plan. The Draft EIS summarily dismisses [numerous] requests from the public “for the EMR to accommodate dispersed recreation with additional parking in the EMR base area and a summer/winter trail... to the current Hessie/Fourth of July Road trailhead. Allowing dispersed recreationists to park in the EMR parking lot would ease some of the parking issues at the current Hessie trailhead” because “the concept does not address the identified Purpose and Need, the EMR parking lots are located on private land, and the issue is beyond the scope of this EIS and better addressed through trailhead management.” The scope of the EMR project and the EMR project boundary were defined far too narrowly. We submit that this is not “just a ski area,” but offers instead the long-sought solution (indeed, the only solution) to many existing recreational issues on the Boulder Ranger District. It is time for the Forest Service and BCPOS to think outside the box, get creative, and become proactive. Merely suggesting that this issue would be “better addressed through trailhead management” is unrealistic and unacceptable.**

EMR’s current Master Plan does not include summer activities and neither EMR nor the Forest Service have identified a need for this to be included in this NEPA process. Additionally, as discussed above and discussed in the DEIS (p. 2-44), the accommodation of dispersed summer recreationalists at the EMR base area was not analyzed in detail. The parking lot referenced by the commenter is located on private property and not under the jurisdiction of the Forest Service. In accordance with 40 CFR 1502.14, the Forest Service did not determine that such a project on private lands was reasonable to consider and the purpose and need for such a project is beyond the scope of this analysis.

**2.4.5 A Hessie By-Pass Trail from the EMR parking lot to Lost Lake should be constructed, as this would fulfill multiple unmet Recreational Needs. If summer public parking were allowed in the EMR parking lot, traffic in the Eldora Townsite would be reduced. The need to build additional parking at Hessie would become less urgent. A combination of existing ski area infrastructure and short new trails would minimize environmental impacts while maximizing passive recreational experiences: I. The new ski lift roads at the bottom of the EMR mountain could be used as summer trails, utilizing existing ski area access roads or only a short new trail to be constructed from there to the Lost Lake Trail junction. II. The existing gas pipeline and ski trails at the top of EMR could be combined as a summer trail system, leading to the historic mining district at Lost Lake and beyond. III. A system of at least two “stacked loop” trails could be created by designating a trail connector along the service road in the middle of the project area.**

As disclosed in the DEIS (p. 2-44), this is beyond the scope of this analysis. As discussed above in Response 2.4.4, summer recreation projects are not included in this analysis.

- 2.4.6 A bridge across Middle Boulder Creek at the base of the proposed Placer Lift should be built and left open for Non-motorized summer recreation to enable people to bypass Hessie and provide a new access point to the FS lands and Indian Peaks Wilderness beyond. I. New “oversized vehicle” parking could be created in this area, facilitating equestrian use and relieving recreational pressure on Hessie.**

As disclosed in the DEIS (p. 2-44), this is beyond the scope of this analysis. The bridge across Middle Boulder Creek included in Alternative 2 would be restricted for use by authorized persons only. A PDC is included in this alternative to install a gate across the bridge in order to minimize impacts to resources along Middle Boulder Creek. Equestrian parking is beyond the scope of this analysis because, as discussed above in Response 2.4.4, neither EMR nor the Forest Service have identified a need for summer recreation at EMR.

- 2.4.7 The trails from the Peterson Lake Trailhead should be formalized and the trailhead parking there enlarged and/or connected with the EMR trailhead parking lot, fulfilling several historic Recreation Needs. This area is one of the few places where non-motorized recreationists have historically been able to access the National Forest leading to Jenny Creek and the Rollins Pass area. Equally important, a network of social trails already exists connecting Peterson Lake Trailhead and the Eldora Nordic Ski Area with the West Magnolia trail system. These informal trails are common knowledge but they should be designated and enhanced. Doing so would create a long-sought and spectacular regional trail system that has been a key part of many recreationists’ vision for years. Parking at Peterson Lake has grown popular and is now insufficient for horse trailers, thereby precluding the historic equestrian use of this entire area. The Draft EIS contains several references to proposed changes in this area, mostly involving “disconnecting” existing roads and eliminating existing parking spaces. Please don’t do that! We recommend enhancing the existing parking – not reducing it -- and designating trails just outside the EMR to provide clear and legal public access to the National Forest.**

As disclosed in the DEIS (p. 2-44) and Response 2.4.4, above, this is beyond the scope of this analysis.

## **3.0 NEPA PROCESS**

### **3.1 Conflict of Interest**

- 3.1.1 Significant Flaws with the Process Conflict of Interest - Having raised the conflict of interest of the SE Group both 1) preparing the 2011 Master Plan for EMR (as consultants) and also 2) paid to be the “Prime Consultant” for the preparation of the Draft Environmental Impact Statement (in an “audit” type of role), I am not satisfied with the Forest Service determining “that no conflict of interest exists.” Government officials ought to be well-informed on the Sarbanes-Oxley Act of 2002 (SOX) which was passed with a 99-0 vote in the US Senate and a 423-3 margin in the House of Representatives. The Securities and Exchange Commission established an oversight board to ensure adequate independence and objectivity of the audits of publicly held companies. SOX completely changed the permissible auditor-client relationship. SOX prohibits audit firms from providing most consulting services to their clients including “expert services unrelated to the audit”. To**

**suggest that signing a “disclosure statement” serves to ensure objectivity of the SE Group is preposterous. Their financial existence depends on successful results in helping ski resorts obtain expansion approval. Once the SE Group was chosen by EMR to be their consultants in preparing the Master Plan, a different, independent firm should have been engaged to perform the due diligence/audit work required by NEPA in evaluating the appropriateness and propriety of the Master Plan. Dismissing my concerns raised 18 months ago suggests Mr. Casamassa was unfamiliar with SOX.**

As disclosed in the DEIS (p. 1-18), “the Forest Service has determined that no conflict of interest exists with SE Group and its sub-consultants in the preparation of this EIS.” This concern was dismissed, “in reference to the Code of Federal Regulations at 40 CFR Title 40, Part 1506.5(c), which addresses the use of the third party consulting firm for preparation of an EIS.” A disclosure statement indicating the Prime Consultant and all sub-consultants do not have financial or other interest in the outcome of the project are included in the project file. Additionally, the Forest Service ID Team has reviewed all reports and analysis prepared by SE Group.

The Sarbanes-Oxley Act of 2002 relates to U.S. Public company boards, management and accounting firms. This act is not relevant in the context of this NEPA analysis.

## **3.2 General**

**3.2.1 The DEIS does not adequately justify the purpose and need for the expansion. It appears the Forest Service is assuming that some expansion is necessary based on the Ski Area’s 2011 Master Plan, as the Purpose and Need statement is derived from the Master Plan. Yet it’s unclear how much analysis, either public or internal, was required for the USFS to administratively “accept” the Master Plan. This is the tail wagging the dog. The analysis should begin with a comprehensive update to the Forest Plan so that the overall impacts of expansion on this subarea and the Forest as a whole can be assessed, using more data, rather than the Forest Plan being amended by virtue of a Final EIS approving an expansion driven only by the Ski Area’s business development needs.**

In order to inform the preparation of their 2011 Master Plan, EMR engaged the public, local municipalities and Town Council members between January and March of 2010. EMR invited over 6,000 individuals in Front Range communities to share comments at one of three public meetings or through a web form on the EMR website. In total, EMR received comments from over 1,000 individuals.

Forest Service acceptance of the Master Plan does not convey site-specific technical feasibility, assessment of site specific impacts, or approval of any potential projects identified in the Master Plan. Implementation of any projects on NFS lands within EMR’s SUP boundary is contingent upon site-specific environmental assessment findings and project decision approval via the NEPA process.

The ARP Forest Plan is current and provides guidance for the management of lands in the Arapaho and Roosevelt National Forests and Pawnee National Grassland.

**3.2.2 Insufficient Time to Review Documents, especially because some were added late - Mr. Casamassa allowed eighteen months from August 2012 to February 2014 for the SE Group to provide the Draft Environmental Impact Statement and yet he only grants interested parties forty-five days to respond. The documents and maps provided are extensive and require time and effort to properly review. Furthermore, the 45 day deadline of April 14, 2014 was also problematic for taxpayers and income tax preparers, like me, who have scheduled preparation of income tax returns during March and early April. Whether intentional or not, interested parties lack sufficient time to carefully review and analyze the documents provided with the Draft Environmental Impact Statement. Despite Ms. Sylvia Clark's February 28, 2014 letter which states "The entire DEIS can be reviewed and downloaded at the Project Website: <http://www.EldoraEIS.com>," twenty-four documents were added after March 5, 2014, all backdated to February 27th in the "Displaying All Items" list. In mid-March 2014, I printed off all documents for my review showing only three documents in February, all dated the 28th (I can provide a copy of the listing from March 11, 2014 which can be compared to the current listing to support me on this). Two days ago, on April 11, 2014, I noted the 24 new documents, some of them 200 pages, and many of which are major reports of third parties. Many of these documents were completed by third parties in 2013 but were not made available in this listing until after March 11, 2014. One of the documents is dated March 2014 and yet it is dated as if it was loaded as a February 27, 2014 document. Again, whether intentional or not, interested parties lack sufficient time to carefully review and analyze the documents provided with the Draft Environmental Impact Statement in March 2014 and not communicated as new documents to interested parties. As a CPA, due diligence is an area most familiar to me. I have not had ample time to review these documents which I had no knowledge would be added after March 11. Reviewing all relevant documents informs me as to what studies were done, by whom (their qualifications), any inconsistencies, any shortcomings, any misinformation, etc. I formally request an extension of time to review these documents. Of particular concern is what I read in one of the new reports regarding the Peterson Return Ditch and the buffer between the resort and the creek. I simply need more time to understand the new information provided.**

As defined in 40 CFR §1506.10(c), agencies must provide at least 45 days for public comments on a DEIS. The lead agency may extend or reduce this period if it is deemed appropriate and necessary. In this case, the ARP felt that a 45-day review period was sufficient for the DEIS. The DEIS, a singular, stand-alone document, was available for review at the beginning of the 45-day comment period. The other documents the commenter is referring to are supplemental documents that are not typically provided to the public in an on-line format, but were in this instance for ease of access to interested public. Normally, the public would need to file a formal Freedom of Information Act request for this information. The supplemental documents and reports prepared throughout the analysis are considered deliberative until the DEIS published and thus were finalized and released following the publication of the DEIS. The information contained in the supplemental documents and reports was summarized in the DEIS. Comments on supporting documents were not sought.

- 3.2.3 The public process heretofore should have been more inclusive, as it did not make clear what kinds of public input would be incorporated. As summarized above, the Boulder County Horse Association (BCHA) has been deeply involved in ongoing attempted negotiations with both the Boulder Ranger District and Boulder County Parks & Open Space over equestrian use of this entire area for more than 20 years, yet BCHA was not even made aware that the EMR EIS process was under way until the Draft EIS was released -- and even then we only obtained it through “the grapevine.” C.) The remaining public process should be clarified. The Draft EIS states that the powers that be haven’t yet selected a Preferred Alternative. In fact, on page 2-79, it says, “At this time, considering the environmental impacts to public lands and the opportunities for use of those lands that would benefit the most people over the longest term, the Responsible Official has not identified a preferred alternative. Following review of public and agency comments on this DEIS, the Responsible Official will make a final determination as to which alternative, in part or in whole, best serves the public interest on NFS lands. Based on public agency comments, modification of the preferred alternative may occur between Draft and Final EIS.”**

The ARP notified the public about this EIS through scoping outreach, the project website, public open houses, and notification of release of the DEIS. A scoping notice was distributed to a mailing list of approximately 240 individuals and organizations on June 28, 2012 (followed by a revised scoping notice to the same list on July 13, 2012). Two public open houses were held during the scoping process, on July 18, 2012 and July 19, 2012. The project is also listed in the Schedule of Proposed Actions on the ARP website. The project website announced the release of the DEIS and the associated comment period as well as two public open houses during the DEIS comment period, on March 25, 2014 and March 26, 2014.

Regarding the remaining process, the Responsible Official will release a draft Record of Decision in conjunction with the Final EIS. This draft Record of Decision will be subject to objection per CFR 218 (individuals and organizations who provide comments during the 45-day comment period on the draft EIS will have standing to file objections). Following the 45-day objection period, the Responsible Official will review and resolve any objections prior to issuance of a final Record of Decision.

## **4.0 PLANNING DOCUMENTS – GENERAL**

### **4.1 Eldora Environmental Preservation Plan**

- 4.1.1 To address growth and development issues, and concerns with recreational growth in the area, the Eldora Civic Association (ECA) Board of Directors directed the creation of the Eldora Environmental Preservation Plan (EEPP) in 1992 (LREP, Inc. 1994). The goal of EEPP is to develop planning tools to be used by Eldora residents that will allow them to have standing and full consideration by the local, state, and federal planning agencies that control land use in the Eldora area. These agencies control land use development, both on private lands within Eldora, and on the adjacent public lands which comprise Eldora’s natural setting. In 1995 the Boulder County Planning Commission adopted policies in the Mountain Subregion Element of the Boulder County Comprehensive Plan that recognized**

the Eldora Civic Association as an appropriate referral entity for the area and the use of EEPP for reference. The boundary of EEPP includes the area below the existing Corona and Indian Peaks pods of the ski area. A larger referral area is described as “bounded by the Continental Divide on the west, the Boulder/Gilpin county line to the south, the westerly corporate limits of the Town of Nederland on the east, and the Caribou Townsite/County Road 128 to the north” (Boulder County 1996). It is noted that when EEPP went through the public process for inclusion into the Boulder County Comprehensive Plan, changes were made to the EEPP boundary based on comments from the ski area; the ski area made no comments pertaining to that portion of the EEPP boundary below the Indian Peaks and Corona lifts where the ski area now desires to expand. The EEPP was updated in 2012 (Eldora Civic Association 2013). Recommendations in EEPP relative to the ski area include (EEPP at page 112): ECA should work towards limiting the eventual size and operations of the ski area. There should be no expansion of the ski area outside their current permit boundary and no expansion below the existing Corona and Indian Peaks pods. Operations at the resort should be monitored along with the documentation of adverse impacts and noncompliance with the terms and conditions of the Boulder County special use permit and the Forest Service permit. Goals include:

- Protection of all threatened, endangered and sensitive species, species of concern, wetlands, riparian areas, watershed and stream quality, and old-growth forests.
- No use of water by the ski area from Middle Boulder Creek above the community of Eldora and strict enforcement of minimum stream flows on Middle Boulder Creek in the winter.
- Reduce existing noise impacts from snowmaking and grooming on the community of Eldora.
- No access for any activities associated with the ski area from the Fourth of July road or Hessie.
- No summer use of the backside (north slope of Bryan Mountain) in order to protect elk and other wildlife.
- Acquisition of buffers and critical habitat between the resort and the community of Eldora.
- Monitor the quality of effluent from the ski area’s wastewater treatment plant by working with State of Colorado and Boulder County water quality divisions.
- There should be no net loss of wetlands at the ski area, and there should be mitigation for the 32 acres lost since its creation. Any mitigation should occur on or in close proximity to the ski area.
- There should be no night skiing on the backside of the ski area.
- Boulder County’s current limit on the ski area of 5,000 alpine tickets per day should remain and be enforced.

As discussed in the DEIS, the Forest Service considered the guidance included in the Boulder County Comprehensive Plan and Eldora Environmental Preservation Plan throughout the preparation of the DEIS (p. 1-18). These plans were referenced and incorporated to the extent practical, particularly through the development of PDC and Alternative 3. Some of the goals and objectives of these plans (including the

protection of wildlife habitat, natural areas, and general ecological health) align with the goals, objectives, standards, and guidelines of the ARP Forest Plan. The ARP Forest Plan contains management principles for the entire range of resources present within the Forest, including physical resources such as water and soil, biological resources such as wildlife and vegetation, and social resources such as scenery and recreation. Refer to the resource sections of Chapter 3 for discussions of resource-specific standards and guidelines, or the ARP Forest Plan.<sup>1</sup> Additionally, while these plans were considered throughout the preparation of the DEIS, the governing regulations of the ARP Forest Plan are the final standards and guidelines which the projects will be measured against.

## **4.2 Boulder County Comprehensive Plan**

**4.2.1 ADDRESS COMPATIBILITY WITH LOCAL LAND USE PLANS.** The Boulder County Comprehensive Plan expresses some designations for Middle Boulder Creek and the Fourth of July road. The Open Space Map of the Boulder County Open Space Goals, Policies and Maps Element of the Comprehensive Plan designates Middle Boulder Creek as an Open Corridor – Streamside; and Fourth of July Road as Open Corridor – Roadside (Boulder County 1996). Relevant policies for Open Corridors from the Comprehensive Plan are: • OS 3.01: Where necessary to protect water resources and/or riparian habitat the county shall ensure, to the extent possible, that areas adjacent to water bodies, functional irrigation ditches and natural water course areas shall remain free from development... • OS 3.03: To the extent possible, the county shall protect scenic corridors along highways and mountain road systems... • OS 3.04: Areas that are considered as valuable scenic vistas and Natural Landmarks shall be preserved as much as possible in their natural state.

See Response 4.1.1.

**4.2.2 In addition, the Indian Peaks Wilderness is designated as a Natural Landmark, a landscape feature “designated solely for its visual and scenic prominence that distinguishes a specific locality in Boulder County.” The values associated with these designations are at risk with the development proposed under Alternative 2.**

See Response 15.3.4. The boundary of the Indian Peaks Wilderness is approximately 1.3 miles from the proposed projects at its closest point (the westernmost part of proposed trail P-6). See Response 15.3.1 for a discussion of scenic impacts at viewpoints west of the Hessie Trailhead. The proposed projects may be visible from the Indian Peaks Wilderness, and would be in the middleground or background distance zones. The proposed projects would not jeopardize the Natural Landmark designation (Boulder County designation per the Boulder County Comprehensive Plan) of the area.

**4.2.3 Further, the 2013 update of Environmental Resources Element of the Comprehensive Plan also identifies Significant Natural Communities in the area of the proposed new lift terminal, Riparian and Wetland Resources associated with the creek, and Critical Wildlife Habitats (“CWH”) associated with Lost Lake, Peterson Lake, and Lake Eldora, as well as**

---

<sup>1</sup> The ARP Forest Plan is available for download at the Forest Service website:  
[http://www.fs.usda.gov/detail/arp/landmanagement/planning/?cid=fsm91\\_058277](http://www.fs.usda.gov/detail/arp/landmanagement/planning/?cid=fsm91_058277)

**other CWH in the immediate area. On-going studies have demonstrated that this corridor is a highly functioning movement corridor for large mammals, particularly elk and moose, especially as they transition seasonally between higher and lower ground. Expansion into this area would interrupt this effective habitat in both the short term with construction and in the long term with the foreseeable increased incursion from dispersed recreation.**

Refer to ID 848 for a discussion of the applicability of the BCCP and EEPP. Impacts to wildlife are disclosed in Chapter 3, Section H – Fish and Wildlife, of the DEIS. Impacts to other resources in the Middle Boulder Creek corridor are discussed in the various resources sections of Chapter 3 in the DEIS. Impacts specific to the “Middle Boulder Creek corridor” are disclosed in the DEIS (p. 3-220).

#### **4.3 General**

- 4.3.1 The Obama Administration’s new forest policy rule, released in March 2012 to replace guidelines thrown out by a federal court in 2009, charts a new course to conserve and restore the health and integrity of National Forests and Grasslands across the country. The new rules strengthen a requirement that decisions be based on the best available science will be used in the decision making process. The guidelines, known as a forest planning rule, will encourage forest restoration and watershed protection while creating opportunities for recreation and other consumptive uses. This certainly pertains to the EMR Ski Area expansion concerns.**

The Forest Service followed applicable law, regulation and policy in the preparation of the DEIS and throughout this NEPA process.

### **5.0 SUP BOUNDARY ADJUSTMENT\FOREST PLAN AMENDMENT**

#### **5.1 Forest Plan Amendment Consistency and Analysis**

- 5.1.1 THE FOREST PLAN MUST NOT BE AMENDED TO ALLOW THE PROPOSED EXPANSION OF EMR. Under the current Forest Plan, expansion outside of the “boundaries currently specified in the Master Development Plan” is prohibited. Plan at 54. It was the clear understanding of the Eldora Civic Association at the time of Forest Plan development (1997) that there would be no expansion of EMR outside the SUP. Just a few years before the revised Forest Plan was finalized, EMR had expanded by constructing the Indian Peaks pod. The quoted Plan language was thus clearly intended to limit the size of EMR on its north side. However, the Forest Service believes such expansion is acceptable because the Master Plan was revised in 2011, and this newer version allows the proposed expansion. DEIS at 2-40. Note, however, that the Forest Plan does not say “current master plan”, but rather “currently specified in the Master Development Plan” (emphasis added), clearly referring to the master plan applicable at the time the final revised Forest Plan was issued. That Master Plan did not include the expansion now being proposed. The master plan was changed without any public involvement, resulting in the 2011 edition that desires expansion beyond the current SUP boundary. The public never had an opportunity for input on this major change. It is thus inappropriate to now propose a project that would require a change in the Forest Plan. 6 The Forest Plan also states that “There will...be no increase in the established maximum daily capacity”. Plan at 54. However, the new lifts and**

**upgrades of existing ones would considerably increase the uphill capacity of EMR4, and the additional runs would also allow more skiers. The comfortable carrying capacity would increase from 4250 (DEIS at 3-4) to 5880 (id. at 3-15). This would not comply with the Forest Plan, and would therefore violate the National Forest Management Act, which requires that: Resource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plans. 16 U.S.C. 1604(i); emphasis added. The amendment for the Jolly Jug portion would change 11 acres of management prescription 1.3 to 8.22. DEIS at B-3. The 1.3 management area emphasizes backcountry recreation. Plan at 337. This acreage should remain in management area 1.3. We do not oppose amending the plan to designate land already used for the ski area in the 8.22 management prescription. But an amendment allowing the expansion into the Placer and Jolly Jug areas must not be approved. It is inappropriate to amend a forest plan to accommodate the desires of a private entity, unless the proposed project or activity allowed by the amendment has full public support. That is clearly not the case here.**

The commenter is correct that the 1994 Master Plan did not include the SUP boundary adjustment associated with the Placer Express and associated terrain. Refer to Response 3.2.1 for a discussion of EMR's master planning process and Forest Service acceptance. Additionally, as discussed in Response 2.2.1, the DEIS addresses concerns about consistency with Forest Plan language regarding operations at EMR (DEIS p. 2-40). Because the Proposed Action is contained in the current 2011 Master Plan, these projects would be consistent with the Forest Plan.

As discussed in Appendix B – Proposed Forest Plan Amendments of the DEIS, the Forest Service is authorized to implement amendments to forest plans in response to changing needs and opportunities, information identified during project analysis, or the results of monitoring and evaluation. Appendix B discusses the proposed Forest Plan Amendment included in the Proposed Action and determines that it would be non-significant.

The commenter references a statement in the Forest Plan stating that “There will...be no increase in the established maximum daily capacity.” That statement in the Forest Plan references an agreement between EMR and Boulder County that EMR will not sell more than 5,000 day lift tickets (season passes are not included in this limit). The increase in CCC included in the Proposed Action is not the same as an increase in maximum daily capacity. Rather, CCC is a planning parameter used to determine the optimum level of daily utilization for a resort—one that facilitates a pleasant recreational experience without overburdening the resort's infrastructure. It is a planning figure only and does not represent a regulatory cap on visitation. EMR is still bound by their agreement with Boulder County regarding maximum daily capacity.

- 5.1.2 A Forest Plan amendment process could also best determine the management prescription for the recently acquired Toll property in the Hessie area. For portions of it to be subsumed by the expansion of the ski area boundary without a fuller consideration of its diverse and unique values in a wider planning effort seems out of sequence - particularly when the Forest Plan is at the end of its planning horizon of 20 years.**

The Forest Service gave consideration to this point during the preparation of the DEIS, but determined that the planning and Forest Plan Amendment process for those lands located beyond the proposed project area is beyond the scope of this analysis. These considerations will be dealt with in a future process.

- 5.1.3 In addition, not all of the land in this area is addressed in the 1997 Forest Plan. Part of the Special Use Permit boundary adjustment to the north toward Middle Boulder Creek was not included in the Forest Plan, presumably because the USFS acquired it after its adoption. This is another reason to comprehensively update the Forest Plan first.**

A programmatic Forest Plan Revision process is beyond the scope of this site-specific analysis.

## **6.0 BOTANY**

### **6.1 General**

- 6.1.1 PROTECT RARE PLANTS.** Plant species of concern highlight the adverse ecological impacts that will occur above Middle Boulder Creek due to the Proposed Action (Alternative 2). Of the nine Plant Species of Local Concern that were documented within the project area, five (Lady Fern, Fairy Slipper Orchid, Oak Fern, Heartleaf Twayblade, and Club Moss) were found in the vicinity of the Placer lift, runs, and glades, and all would likely be adversely impacted due to the opening of the forest and greater exposure to sunlight. All of these species favor shaded, moist forests. Skiing and other resort operations compact snow. This delays spring snowmelt, and may shorten the growing season for plants. DEIS at 3-271. It will cause deeper frost penetration, possibly damaging plant roots and microorganisms necessary for soil processes. Ibid. It may decrease flowering times (ibid.), which could decrease their ability to reproduce and expand to viable populations. In sum, the installation of at least the Placer Lift and associated runs would harm plants of local concern. The project must be adjusted to eliminate or greatly minimize these impacts. Again, not constructing the Placer Lift and runs would be the surest way to accomplish this.

Impacts to botanical resources are disclosed in Chapter 3, Section I – Plants, of the DEIS.

## **7.0 FOREST HEALTH**

### **7.1 Fire Risk**

- 7.1.1 Wildfire is rarely discussed anywhere in the EIS materials. I suspect the thinning or cutting of new trails may help decrease the possibility of a catastrophic wildfire and its subsequent effect on sedimentation and erosion.**

Wildfire fuels are discussed in Chapter 3, Section G – Forest Health, of the DEIS. The construction of new ski trails could result in reduced fuels and potential for wildfire throughout EMR (DEIS p. 3-141).

## **7.2 General**

- 7.2.1 VIII. IT IS VERY IMPORTANT TO RETAIN TREES AT EMR.** Trees are obviously important at ski areas, as they demarcate runs, help properly distribute snow, and provide visual contrast for visitors. There are numerous threats to trees at EMR: mountain pine beetle (MPB), other insects, windthrow, and diseases (like white pine blister rust). Thus it is wise to retain as many trees as possible, including potential future old growth stands. See more detailed discussion in section V above. Cutting trees increases the risk of windthrow. *Id.* at 3-140. This is especially true with EMR being in a very windy area, plus the fact that the soils often have low water holding capacity. *Id.* at 3-135. Trees in a stand develop wind firmness together as the stand grows. Removing more than a minor proportion of trees can cause the entire stand to unravel. Any blowdown in spruce would be problematic, as it would provide host trees for spruce bark beetle (SBB). The downed trees, if not found and treated before beetle flight, would allow breeding of SBB in numbers easily large enough to attack many live, standing spruce trees. Tree removal under the proposed action would not be light. About 58 acres would be cleared for new trails. *Id.* at 3-3. This exposes the trees on at least the windward side of each new trail to blowdown. Also, about 57 acres of new glades/tree skiing would be cut (*id.* at 3-3, 3-143), removing 30 to 50 percent of the trees in each new area. *Id.* at 3-140. Another 43 acres of existing glades would be further cut. *Id.* at 3-3. Any stand opened this much would become susceptible to windthrow.

Potential impacts to forest health resulting from all alternatives are disclosed in Chapter 3, Section G – Forest Health, of the DEIS. As disclosed in the DEIS (p. 3-140), “tree removal would create openings in the forest canopy and increase the risk of blow downs.” Certain VMP projects, particularly P5 and P7, contained in the action alternatives address potential spruce beetle by thinning spruce fir forests (DEIS p. 2-9).

- 7.2.2** Notably, 30 acres with good regeneration would be cleared, and all but four acres to be treated under alternative 2 have adequate regeneration. DEIS at 3-143. Regeneration would be destroyed or inhibited in glades, as skiing over regeneration would damage or kill the seedlings. See *id.* at 3-141, 3-142. The areas with good regeneration should not be cut. Stands with both considerable overstory and regeneration are good lynx habitat. The species regenerating are not specified in the DEIS’ description of forest health, but should be. Since these trees are in existing stands, presumably with at least moderate canopy cover, it is a good bet that much of the regeneration contains, or is even dominated by, shade tolerant conifers such as Engelmann spruce and subalpine fir, since lodgepole pine and limber pine are shade intolerant. Regeneration for shade tolerant trees like spruce and fir is not easy to accomplish artificially, and thus any existing regeneration of these species must not be destroyed. These trees also do not host MPB, so reasonable efforts to save existing spruce and fir regeneration and encourage new regeneration of these species should be made. The Forest Service should not dump good regeneration down the drain, as would occur under the action alternatives.

As disclosed in the DEIS (p. 3-143), approximately 30 acres of vegetation clearing would occur in forest stands which are currently experiencing “good” natural regeneration. The regenerating species in these areas were not specifically identified, but shade tolerant species such as Engelmann spruce and subalpine

fir are likely present, as suggested by the commenter. Skiing activity would likely hinder the regeneration activity in these areas.

**7.2.3 Finally, 2.8 acres of land containing large, and presumably old, limber pine trees would be adversely affected by the proposed action. DEIS at 3-275. Even with mitigation, some of these trees would be lost (see below), contributing to the decline of limber pine that is already occurring due to MPB and white pine blister rust (WPBR). Ibid. Given the threat to five-needle pines posed by WPBR, it would be especially inappropriate to cut limber pine trees that show resistance to this pathogen. However, the applicable PDC only advises that trees or stands noteworthy for biological or recreational/aesthetic values will be considered for retention on the landscape or for receiving reduced treatment impacts, when practicable. Examples include very old trees or stands, “bonsai” trees, and genetic reserves of limber pine not yet succumbing to MPB or WPBR. DEIS at 3-19; emphasis added. Full retention of these trees and stands must be required.**

The FEIS contains a discussion of potential impacts to limber pine (refer to Chapter 3, Section I – Plants pp. 3-276 and 3-278), as well as methods through which to protect limber pine at EMR. The Proposed Action could lead to approximately 2.8 acres of direct impacts to limber pine, and approximately 4.4 acres of impacts due to glading projects. Additional impacts could occur due to vegetation management projects. The analysis states that the Proposed Action may contribute to the overall decline of limber pine within the Forest which is currently being exacerbated by the ongoing MPB epidemic and white pine blister rust (DEIS, p. 3-275).

As identified by the commenter, a PDC contained in Table 2-3 states that “Individual conifer trees or stands that the Forest Service determines to be noteworthy for biological or recreational/aesthetic values will be considered for retention on the landscape or for receiving reduced treatment impacts, when practicable. Examples include very old trees or stands, ‘bonsai’ trees, and genetic reserves of limber pine not yet succumbing to MPB or WPBR.” The Forest Service believes that this PDC provides adequate guidance for preserving limber pine at EMR.

## **8.0 WILDLIFE AND AQUATICS**

### **8.1 Lynx**

**8.1.1 Canada Lynx are mentioned throughout the DEIS and considerable effort has been made by the Forest Service to identify key habitat features and areas located in and around EMR that are associated with Canada Lynx. There are habitat components within EMR and inside the proposed expansion that can provide quality habitat for this extremely elusive and rare animal. As stated in the DEIS “alternative 2 warrants a may affect, likely to adversely affect determination for Canada Lynx.” If the lynx population in Colorado continues to increase it may be expected that their range and occupancy will continue to expand in the northern Front Range and therefore habitat associated with lynx will be of great importance.**

The commenter has correctly described the lynx analysis and determination. Impacts to lynx habitat are disclosed in Chapter 3, Section H – Fish and Wildlife, of the DEIS.

**8.1.2 The effects of the action alternatives on lynx diurnal security habitat (DSH) are not analyzed. DSH is very important for lynx, as they need to have secure daytime resting places so they can hunt at night. DSH is mentioned once in the DEIS, under possible effects from dispersed recreation (p. 3-303), but it is not analyzed. With smaller intertrail islands, either of the action alternatives would decrease available DSH and make it harder for lynx to cross or inhabit the ski area. Because either action alternative is likely to adversely affect lynx (id. at 3-199 for alternative 2, 3-223 for alternative 3), the Forest Service must undertake consultation with the Fish and Wildlife Service under section 7 of the Endangered Species Act (16 U. S. C. 1536(a)(2)).**

The project file includes the Biological Assessment which includes an analysis of DSH. The Biological Assessment has been submitted to the USFWS to initiate formal Section 7 Consultation.

**8.1.3 The comments about Lynx habitat reflect a lack of concern: Pg. 3-161, a relatively small proportion of the ski area is “currently unsuitable”. That proportion may increase with the MBP. Table 3H-4: Lynx statistics don’t reflect the effect of the MPB which converts some “other” and winter foraging habitat into currently “unsuitable” habitat. Since the Forest Service has not remapped lynx habitat in the Boulder LAU to account for MPB effects, how can the statements in the DEIS be justified?**

The lynx habitat type data used in this analysis was field verified by a wildlife biologist, and reflects the current conditions of habitat in the EMR study area. “Currently unsuitable” is a lynx habitat classification that reflects habitat not currently effective for lynx (generally as a result of the MPB epidemic), but habitat that would again become productive over time with normal forest succession. It was beyond the scope of this project to field verify or otherwise remap the entire Boulder LAU to reflect those lynx habitat conditions. As a result, field verified project area lynx habitat types and the effects of the Action Alternatives were compared to the existing Boulder LAU lynx habitat statistics.

## **8.2 Aquatic Species**

**8.2.1 Alternative 2 includes construction activity and forest thinning on the steep slopes on the south side of MBC which may adversely impact the aquatic and riparian systems along MBC adjacent to the proposed expansion. The proposed collector trail, snowmaking, traditional trails, and glades could result in increased surface run off and erosion. This could have potential negative impacts on the riparian corridor. Erosion could result in input of fine sediment to the stream channel, and may cause local sedimentation issues and increased turbidity, negatively affecting aquatic insect habitat, trout spawning habitat and larval fish cover. MBC does not contain species of special concern and is managed as a wild salmonid stream, inhabited primarily by brook and brown trout. Increased stream turbidity that may result from the proposed expansion may negatively impact aquatic invertebrates, larval fish and adult fish, and may be noticeable to recreationists and downstream neighbors. Erosion resulting from the proposed northern expansion could be**

**detrimental to the wild trout fishery in MBC, the overall health of the riparian ecosystem and the recreational experience for anglers and others.**

The DEIS (p. 3-213) acknowledges that the Proposed Action could result in sedimentation extending to segments of Middle Boulder Creek occupied by trout. “Erosion and sedimentation could affect trout spawning (particularly fall spawning species) and aquatic habitat quality (e.g., aquatic macroinvertebrate communities) before revegetation treatments become effective,” (DEIS p. 3-213). Alternative 2 would be consistent with the Executive Orders 12962 and 13474 prohibiting Federal Actions from significantly affecting a recreational fishery (DEIS p. 3-213).

**8.2.2 The Draft EIS questions the genetic purity (i.e., trout native to the South Platte River drainage) of the greenback cutthroat trout that have recently been detected in Middle Boulder Creek, and identifies that it is likely these fish originated from native cutthroat trout stocked into the headwater lakes located in the Middle Boulder watershed (p. 3-154). Further, the genetic evidence suggests that genetically-pure greenback cutthroat trout may only be found in a single, small population in the Arkansas River basin (Bear Creek). The decision to drop the cutthroat trout present in the Middle Boulder Creek watershed from further consideration as a federally threatened species is based on applying best professional judgment; however in the absence of conducting genetic analyses, we recommend that relevant information and recommendations from the U.S. Fish and Wildlife Service Section 7 Consultation be included in the Final EIS in light of recent genetic discoveries regarding greenback cutthroat trout lineage.**

Information regarding the genetic purity of the GBCT in Middle Boulder Creek is included in the BA. The BA states:

“Greenback cutthroat trout have recently been detected in Middle Boulder Creek, a reach of which is adjacent to Alternative 2’s proposed Placer Glades ski pod extension (L. Ellwood, USFWS, pers. comm., Feb. 10, 2010, Aquatics Assoc. 2012). The genetic purity and source of those trout are unknown; however, it is most likely that these fish originated from native cutthroat trout stocked into the headwater lakes (e.g., Bob, Betty, Woodland, Skyscraper, and others) located in the Middle Boulder watershed portion of the Indian Peaks Wilderness (Ben Swigle, CPW, pers. comm. Nov. 28, 2012). Based on recent CPW manuscripts (Metcalf) and other research (Rogers et al.), the existing population of cutthroat in the Middle Boulder Creek drainage are not representative of historically pure cutthroat trout genetics (Ben Swigle, CPW, pers. comm. Nov. 28, 2012). The closest known conservation population is from a stream approximately 6 miles to the north. It is unlikely that fish from that source could have gone downstream, then up Boulder Creek because they would have had to negotiate Barker Dam. The GBCT in Middle Boulder Creek are not part of a conservation population. Rather, they are considered part of the recreationally stocked population from headwater lakes. Therefore, genetically pure greenback cutthroat trout that warrant consideration as a Federally threatened species are not present in that portion of the action area that would be affected by the Proposed Action. Greenback cutthroat trout will be considered further for this project as a Management Indicator Species (Thompson 2013b)” (BA p. 68).

- 8.2.3 The Draft EIS states that greenback cutthroat trout (GBCT), brook trout, and brown trout are discussed together because of generally similar habitat requirements, local distribution, and similar response to project effects (DEIS p. 183). Although this seems reasonable, there is one difference worth noting related to the timing of spawning. Brown and brook trout are typically fall spawners, while cutthroat and rainbow trout are spring spawners. Therefore, project-related flow changes in the fall might impact brook and brown trout reproduction, while springtime alterations might have an impact on cutthroat trout. Additionally, laboratory and field studies have demonstrated that cutthroat trout are more sensitive to some toxicants (i.e., metals, including Cu; Davies et al. 2000) than are brook or brown trout. We recommend that the USFS consider this in the Final EIS evaluation, especially in light of the M&E listing for Cadmium and Copper for the mainstem of Middle Boulder Creek.**

The commenter is correct that the proposed projects could have different effects on fish species based on their spawning season and other species-specific sensitivities. Some of these differences are discussed in the technical reports in the project file upon which the DEIS summary text was based. However, the consideration of all trout collectively as an MIS group in the DEIS captures the general effects of the action alternatives.

### **8.3 General**

- 8.3.1 The northern expansion has very negative effects for noise, pollution and wildlife. This area is a wildlife corridor. If the area expands here, the wildlife will be forced to use the road, and increase wildlife mortality.**

Refer to Response 8.3.14. Some wildlife species seasonally migrate through the Middle Boulder Creek area as part of a broad movement pattern that extends south up and into the existing developed portion of the ski area. However, the use of the term “corridor” when referring to the Middle Boulder Creek area is misleading because movements are not constrained to a well-defined area. Under Alternative 2, the animals that now move through this terrain would continue to do so because additional human use and habitat fragmentation would not create barriers or restrictions to such movements. Wildlife mortality resulting from collisions with vehicles is generally an issue where vehicle speeds are greater than 45 mph. While such mortality can result from vehicles traveling at just about any speed, it is unlikely that there would be any increase in wildlife road kills on that portion of Highway 130 adjacent to the project area (where vehicle speeds are typically less than 20 mph) that would be attributable to Alternative 2 or 3.

Highway mortality is discussed in the DEIS in relation to lynx (p. 3-227). In general, the proposed projects could lead to increased highway mortality probabilities for most terrestrial species.

- 8.3.2 Species depend on gradual change to adapt to new sets of conditions and the species that are generalists have a much greater chance of adapting than specialists. Migration is thwarted by human disturbance of migration corridors including habitat fragmentation, roads, recreational activities (ski areas), deforestation and invasive species along with natural topographical barriers. This makes protection of migration corridors even more important. Rapid change translates into extirpation or extinction unless they can adapt to a new set of conditions rapidly. This is exacerbated by human disturbance at EMR. Seasonal changes**

**present many challenges especially with migratory species dependent upon regularity and timing effecting breeding cycles, food chains, pollinators and interrelationships between plants and animals. There is a problem synchronizing complex behavioral and biological demands with rapidly shifting ecosystems. Climate change in conjunction with land management practices could be an asset or liability to many species. This is certainly true at this site.**

Short-term and long-term impacts to wildlife are discussed in the DEIS, Chapter 3, Section H – Fish and Wildlife. Refer to Response 8.3.14 for a discussion of short-term and long-term impacts to wildlife using the Middle Boulder Creek corridor. The additional short-term and long-term habitat modifications and human activities associated with Alternatives 2 and 3 are similar to and of smaller scale compared with prior ski area development disturbances that the wildlife community has adjusted to. While there have likely been changes in the abundance of some wildlife species present in the pre-ski area baseline community as a result of prior ski area development, it is likely that all species originally present are still present. That should remain the case under Alternative 2 or 3.

**8.3.3 The Indian Peaks Wilderness Alliance (IPWA) would like to go on record that we are (1) concerned that the DEIS does not analyze in enough detail the negative impact - or ignores the negative impact - to the Indian Peaks Wilderness from the Eldora ski area expansion, and (2) opposed to the ski area expansion (specifically extending the expansion all the way to the Hessie access road). The proposed expansion will result in a number of negative impacts to the wilderness area and to the wildlife that use the Middle Boulder Creek wildlife corridor.**

The Jenny Creek Trail, Hessie Trailhead, and Fourth of July Road all provide recreational access to the Indian Peaks Wilderness. Impacts to the recreational experience on these trails is analyzed in the DEIS. As discussed in Chapter 3, Section A – Recreation, Mountain Operations, and Guest Services, the Jolly Jug chairlift and associated terrain would traverse the Jenny Creek Trail (DEIS p. 3-21). Scenic and noise impacts resulting from the construction and operation of proposed back-side infrastructure could also impact the recreational experience for users in the Hessie/Fourth of July Road area (DEIS p. 3-22).

The boundary of the Indian Peaks Wilderness is approximately 1.3 miles from the proposed projects at its closest point (the westernmost part of proposed trail P-6). Due to this separation, it is unlikely that there would be any direct impacts to the Wilderness area. Additionally, the action alternatives do not include additional dispersed recreation in the Wilderness area, and thus impacts to Wilderness characteristics would be negligible.

See Response 8.3.14 for a discussion of impacts to the wildlife corridor in the vicinity of Middle Boulder Creek. It is unlikely that any potential Alternative 2 or 3 impacts on fisheries or wildlife along MBC would extend upstream 1.3 miles into the Indian Peaks Wilderness and be detectable or measurable.

**8.3.4 Lastly, there is no clear separate analysis of the negative effect of the initial and the on-going construction, extending the lifts in the proposed action, constant activity around removing cut trees, and finally building the expanded lift, on areas that are used by the**

**wildlife. In addition, the ski area expansion will result in negative impacts in the summer season as well. Unfortunately, the document does not address any negative impact that the expansion will have on the Indian Peaks Wilderness as a result of summer construction and maintenance. In conclusion, the natural activity of wilderness wildlife cannot be confined within a line on a map. Connectivity of adjacent lands is a major factor in protecting the naturalness of wilderness. While ski areas, campgrounds, roads and trails can all be created, a wilderness is a natural area that nature has created and as such should be protected by the managing agency, particularly from surrounding negative impacts.**

The DEIS, Chapter 3, Section H – Fish and Wildlife, discusses the effects of construction on all species analyzed. In general, construction and summer maintenance would temporarily displace species for varying distances and lengths of time, depending on the species in question. Human presence in the SUP during the summer is expected to be low in the long-term, and species are anticipated to return to the SUP area following construction. See Response 8.3.14. Construction Activity Effects on lynx are discussed on page 3-202 of the DEIS. It is unlikely that any potential Alternative 2 or 3 impacts on fisheries or wildlife along MBC would extend upstream 1.3 miles into the Indian Peaks Wilderness and be detectable or measurable.

**8.3.5 A second gastropod is known from the Peterson Lake area – the umbilicate sprite (*Promenetus umbilicatellus*). This species is listed in the county’s Comprehensive Plan as a County Species of Special Concern (see below). It should be analyzed in the DEIS.**

The DEIS and the technical documents that the DEIS was based on addressed a wide variety of animal species representing important individual species, species representing broad groups of wildlife, and species not normally addressed in ARP documents, but addressed because they were identified in public scoping comments. The umbilicate sprite is not a species addressed in ARP analyses. However, projects effects on it would be similar to effects addressed for the Rocky Mountain capshell snail in the same private water bodies off NFS lands.

**8.3.6 Pygmy shrew -- The following comments on this analysis suggest that the overall approach to wildlife impacts may be questionable. P. 3-178 states that, “No suitable trapping surveys have been conducted within the project area...to detect pygmy shrews.” Why were small mammal trapping surveys not completed, particularly for this Forest Service sensitive species? “Evidence to date indicates that this species is rare on the landscape, suggesting that it is unlikely to be present within EMR analysis area.” In most cases, a species is listed as sensitive because of the very fact that it is rare. The Rocky Mountain capshell snail happens to be in Peterson Lake, but since it is “rare on the landscape,” one could have concluded that it is “unlikely to be present within the EMR analysis area.” This is the very reason that surveys are necessary, and in this case why small mammal trapping is necessary. Occurrences of pygmy shrew east of the Continental Divide in Larimer County, and a potential distribution model in Beauvais & McCumber, 2006 (Pygmy Shrew (*Sorex hoyi*): A Technical Conservation Assessment, G.P. Beauvais and J. McCumber, USDA Forest Service, Rocky Mountain Region, Species Conservation Project) clearly show the potential for the species at EMR. “The...areas that would be most suitable for this species...[include] the bottom of Moose Glades, below the Corona base terminal down to**

Middle Boulder Creek, some areas along the Middle Boulder Creek floodplain, and on NFS and private lands east of the Indian Peaks pod.” This is a long list of “suitable” areas. On page 3-208, the impact discussion states that, “Indirect effects associated with this project, limited to increases in dispersed recreation extending into potential pygmy shrew habitat, would have no impact on this species [with citation to Fitzgerald et al., 2011].” This reference – *Mammals of Colorado* – includes no material in its discussion on pygmy shrews that is relevant to the quoted conclusion about recreational impacts. P. 3-208 also states that, “Loss of forest-interior prey may be partially offset during the snowfree season by substantial increases in deer mice (potential prey) on newly created ski trails.” Fitzgerald states that pygmy shrews “prey on a variety of small invertebrates and carrion of vertebrates, including mice and other shrews.” Deer mice may be more abundant on ski runs, (the County speculates that it might be vole species that are more abundant, not deer mice), but mice and shrews are already abundant in the understory of sub-alpine forests, the current condition of the sites. Pygmy shrews weigh from 2 to 5 grams. Although shrews are ferocious for their size, this species would have difficulty with a 14 to 27 gram deer mouse. Beauvais & McCumber also document: 1) how easily pygmy shrew habitat can be fragmented due to the species being both a habitat specialist and a prey specialist, as well as its tiny size limiting its mobility to “other” patches of suitable habitat; and 2) that tree removal converts preferred habitat of mesic forest to dry and open grassland. They suggest that “the known distribution of this montane subspecies strongly suggests that its fate will be determined by management of national forests within Region 2....”

Pygmy shrew is addressed in detail on pages 97–101 of the Biological Evaluation, contained in the project file. For rare and difficult to detect wildlife species, an alternative to conducting extensive and intensive surveys, where negative results would still not prove absence, is to assume presence and predict potential project effects in the event the species is present. That was the approach taken for this species at EMR. The reference to Fitzgerald et al. (2011) in the DEIS was not accurately summarized from page 100 of the BE. The BE states, “The probability that this species would be present in those potentially suitable habitats proposed for disturbance, when it has not been detected (recognizing that the species is difficult to detect) on the ARP or in Boulder County, is unknown, but unlikely.<sup>2</sup> Indirect effects associated with this project, limited to increases in dispersed recreation extending into potential pygmy shrew habitat, would have no impact on this species. A substantial acreage of potential habitat for this species would persist in this analysis area.”

**8.3.7 Olive-sided flycatcher – P. 3-177 of the Affected Environment states that, “During field surveys...olive-sided flycatchers were detected in a few larger, mixed conifer intertrail tree islands within the developed area.” How many flycatchers and in how many tree islands? The only thing that the presented information establishes is that there are olive-sided flycatchers present. “Olive-sided flycatcher habitat values in the existing SUP area should improve with ski trail succession, as trails succeed towards native meadows....” This statement is misleading, particularly in the Affected Environment section; the implication is that the existing ski runs are continuing to “improve” and provide a better and better**

---

<sup>2</sup> Fitzgerald et al., 2011

habitat base for flycatchers. The existing trails at EMR are from 41 to 53 years old; are they truly succeeding “towards native meadows”? The consequences section on p. 207 states that, “Tree removal could be partly beneficial from a long-term, foraging habitat, perspective if forest openings could be revegetated or succeed to support a higher prey base.... That result does not always occur with conventional ski trail development. However, it is more likely to result with the type of flush cutting and tree removal being proposed” (emphasis added). How does flush cutting of stumps, or how trees are removed, result in “better” conditions for flycatchers? Also, is it likely/possible (or, what is the proposal for revegetation?) that forest openings would not be revegetated? Finally, p. 3-208 states that, “Habitat effectiveness may decline in an area larger than the area of tree removal as a result of forest fragmentation effects, snag removal, and subsequent ski trail forage effectiveness.” How much could it decline? Is there data to quantify such losses?

Olive-sided flycatcher is addressed in detail on pages 91–94 of the Biological Evaluation, contained in the project file. The environmental baseline of this species at EMR and the issue with this species on ski areas is addressed in that discussion, which was not summarized in the DEIS. The absolute and precise numbers that the reviewer seeks are not needed for an analysis and determination which is based on the project’s impacts to species at the Forest level.

**8.3.8 Bat species -- Three species are addressed in the document – fringed myotis, hoary bat, and Townsend’s big-eared bat. The document states that these species are potentially present in the analysis area, but, like small mammals, no effort to determine even presence/absence was attempted. There are six other bat species on Boulder County’s list of Species of Special Concern that could occur in the EMR area -- big brown bat, silver-haired bat, little brown myotis, long-eared myotis, long-legged myotis, and Western small-footed myotis; see below. Bats comprise 15 percent of all the mammal species found in Colorado, yet most species have been dismissed from the document, and no species had field surveys completed for the DEIS. Peterson Lake and its nearby meadows and wetlands, the riparian area of Middle Boulder Creek, and areas of mature spruce-fir forest all likely support some bat species, and possibly some of the nine species listed. P. 3-205 states that, “Cables associated with new chairlifts would not represent a meaningful collision hazard.” How is this concluded, and why only for peregrine falcon, but not night-hunting owl species, nor for northern goshawk which hunt at very high speeds and at low altitudes?**

Bat species other than the three addressed in the Biological Evaluation (pp. 101–107) are not addressed in ARP analyses. However, project effects on other bats, if present in the analysis area, would be similar to effects addressed for considered species. For rare and difficult to detect wildlife species, it was assumed that the species could be present and potential project effects were based on that assumption. Heuristic logic suggests that the potential collision hazard posed by inanimate, 1-inch diameter lift cables, to species that use radar to locate, track, and capture flying prey down to the size range of a mosquito within the branch matrix along forest openings, is discountable. NEPA (e.g., §1500.4) also directs that such insignificant issues be deemphasized.

**8.3.9 Northern goshawk -- Conclusion statements for impacts to northern goshawk are unsupported and misleading. P. 3-205 states that, “Any goshawks present, may be**

temporarily displaced by construction season project activities, but would be expected to return to suitable habitat once activities are complete.” On what evidence or study is this based? Even if potentially true for the summer construction season, the major human disturbances on the impacted habitat are winter skiing. Is it the conclusion that goshawks would return to hunt on open ski runs? It further states that, “The Alternative 2 impact area, including areas affected by PDC, represent an insignificant proportion of the total potential range and habitat available to this species on the Forest.” The Arapaho/Roosevelt Forest is 1.5 million acres in size. How many acres of lost goshawk habitat would represent a significant proportion of the total range on the Forest? The statement is not relevant. The DEIS is not analyzing impacts to the Forest-wide population of goshawks, particularly when it is a designated US Forest Service sensitive species. To do so, as this last “conclusion” statement asserts, is highly misleading.

Northern goshawk is addressed in detail in the Biological Evaluation (pp. 77–82), contained in the project file. The principal concerns to goshawks in the project area involve potential effects to nesting and summer foraging habitat associated with a nest territory, not wintering habitat. As with other R2 species, potential project effects are based on the scale of effects at the Forest level.

**8.3.10 American marten – P. 3-179 states that, “Past and present actions that resulted in habitat conversion, fragmentation, loss and incomplete successional recovery that were largely associated with...more recent ski area development in the EMR project area, may have negatively affected potential habitat and local populations of this species, mostly negatively. Forest fragmentation associated with ski area development in late-successional forest is thought to negatively affect local marten use of the landscape.” Yet in the Consequences section, there is no conclusion on the impacts to this species. P. 3-211 states that, “Marten habitat effectiveness may decline in an area larger than the area of tree removal [already at 248 acres (p. 2-63)] as a result of fragmentation effects and tree skiing. The effect of tree skiing intertrail islands on the local forest prey base are unclear, but are unlikely to be beneficial.” “Alternative 2 would affect martens by removing and thinning linear forest strips representing foraging habitat and possible denning habitat, likely extending into portions of several individual’s home ranges” (emphasis added). Why is home range size discussed in analyses for other species, but not for marten? An analysis that considers home ranges should include the cumulative impacts from the existing ski area, as well as the additions proposed. It is stated above that ski areas do have negative impacts to martens. This is particularly important since, “The value of lodgepole and lodgepole-dominated mixed conifer stands to the marten prey base may decline in the short- to moderate term as the MPB epidemic progresses through the EMR project areas and forests beyond.” This is an additional cumulative impact that must be considered when analyzing impacts to marten. It makes the negative impacts from the proposal even more significant. P. 3-211 states that, “...diurnal skiing when martens are asleep in arboreal and subnival dens probably has little influence” on martens. There is little basis for this conclusion. Fitzgerald et al., 2011, states that, “Thompson and Colgan (1994) reported that martens were active less than 20 percent of the day in winter....” This study, however, was from the boreal forest of Ontario, a climate significantly different than Boulder County; the County believes that diurnal marten activity is common in Colorado. Also in Fitzgerald, a 1999 study in**

**Montana found that, “...the animals were active at random, day and night....” The second paragraph of the marten discussion on p. 3-211 speaks of fringed myotis habitat, another statement that brings question to the overall approach to wildlife impacts.**

American marten is addressed in detail in the Biological Evaluation (pp. 107–113), contained in the project file. The issues raised by the reviewer are addressed in that detailed analysis. The reference to fringed myotis habitat in the DEIS (p. 3-211) is incorrect and should have been referring to marten. The FEIS has been updated to reflect this change (p. 3-210).

**8.3.11 Flammulated owl – P. 3-176 states that “no specific taped calling surveys have been conducted at EMR.” Again, a designated Forest Service sensitive species was not surveyed. Although “some [field surveys] overlapped crepuscular hours,” this is insufficient. Taped calling surveys are standard protocol for detecting occurrence or absence of owl species. The same paragraph of the Affected Environment even concludes that “it is possible that flammulated owls could use EMR habitats....” The impact analysis on p. 3-206 states that, “Alternative 2 could result in the loss of [this species’] forested habitat.” The County concludes that it would result in such loss. The loss of habitat is not questionable; it is the presence or absence of the species that is questionable, and the DEIS does not answer this question. Therefore, it cannot conclude anything for this designated sensitive species.**

Flammulated owl is addressed in detail in the Biological Evaluation (pp. 86–87), contained in the project file. That assessment explained that calling surveys were not conducted for this species because the project area does not contain the primary habitat associated with this species. A design criteria includes the consideration of conducting pre-treatment calling surveys in suitable tree clearance areas to avoid impacts to active nests (Table 2-3).

**8.3.12 Numerous statements are made about particular species using other Colorado ski areas as “habitat.” These statements are anecdotal and irrelevant. These include p. 3-174 – “Goshawks have been detected hunting developed portions of Breckenridge, Vail, Ski Cooper, and Powderhorn Ski Areas.” This implies that birds are even “selecting” ski area habitat. And, without any further explanation, this could simply represent four individual birds that used the sites while moving through the area to more suitable habitat, perhaps even in summer, without skiers. Similarly, on p. 3-177, “Boreal owls have been detected in suitably large habitat blocks within the developed interior of Vail Ski Area and adjacent to developed portions of Telluride Ski Area and Durango Mountain Resort.” What does this mean? Vail Ski Area includes very large blocks of natural habitat; are they similar in size to the blocks at EMR? If not, is this a relevant statement? What constitutes “adjacent to” at the other two ski areas? Presumably, all species will use adjacent habitats based on whatever their spatial tolerances are to habitat modifications and to human use/disturbances in a given situation. Without further explanation, such statements are misleading at best.**

Northern goshawk and boreal owl are addressed in detail on pages 77–82 and 87–91 of the Biological Evaluation, respectively, contained in the project file. In summary of those sections, nesting goshawks have not been detected within developed ski terrain, but birds nesting adjacent to the ski area occasionally

hunt the ski area as part of their large hunting territory. Boreal owls have been known to nest and hunt in sufficiently large habitat blocks within developed portions (e.g., Northeast Bowl and Blue Sky Basin) of Vail Ski Area.

**8.3.13 Impacts on the following species are not analyzed in the DEIS and need to be included. These are Species of Special Concern in the county's Comprehensive Plan.**

- American dipper
- Ring-necked duck
- American three-toed woodpecker
- Northern pygmy-owl
- Dwarf shrew
- American water shrew
- North American porcupine
- Tiger salamander
- Big brown bat
- Silver-haired bat
- Little brown myotis
- Long-eared myotis
- Long-legged myotis
- Western small-footed myotis
- Umbilicate sprite

See Response 8.3.5.

**8.3.14 Another example is the impacts to the wildlife movement corridor along Middle Boulder Creek. The table simply groups this issue into "Other Habitats" and refers the reader to Chapter 3, Section H, yet this is one of the major impacts of Alternative 2. P. 3-220 documents this area's importance: "Continuous, largely forested habitat on the south side of the creek is nearly 100 percent effective, mostly buffered from north-side human activities by the high creek flows and lack of bridges (i.e., restricting human access), by the forest cover, and by the noise of the creek. It is likely that most terrestrial and arboreal wildlife movements along Middle Boulder Creek occur on the south side of the creek (i.e., because the habitat is broader and more effective [especially for forest-interior and more reclusive species])." It goes on to document the impacts: "Under Alternative 2, the Placer collector trail (+/- 70 feet wide, +/- 1,800 feet long) would be constructed along the floodplain terrace south of Middle Boulder Creek, in the wildlife movement corridor. The lower end of four ski trails (P-3 to P-6), the bottom of the Placer chairlift corridor and its base terminal would also be located in the corridor. A short access road and gated bridge across the creek would also be constructed." Yet there is no conclusion as to how these impacts affect the corridor. After construction, "...most of the corridor function would resume, although it would be impaired from what is currently available by reduced forest**

cover providing less visual and noise attenuation.” So an 1800-foot collector trail, not to mention the chairlift base with year-round activities and vehicles, would simply “impair” forest interior species using the corridor? The section then ends by saying this base area would remain “more effective” habitat than that in the townsite of Eldora. This is, again, irrelevant and misleading. Also in the Middle Boulder Creek “corridor,” yet on the north side of the creek, about 3000 linear feet of existing road would be: a) widened and improved to meet road standards, and to allow for workable snow plowing; b) would be plowed throughout the winter for vehicular access, which is currently not the case; c) would therefore allow winter recreationists to drive or walk up the road from the west end of the Eldora townsite; and d) would allow these recreationists to park at the de-facto “new” winter trail head at the end of plowing near the bridge crossing. All of these activities would affect this wildlife movement corridor, but none are included in the impact analyses.

See Responses 8.1.2 and 8.3.1. Impacts to the wildlife corridor in the vicinity of Middle Boulder Creek are considered as an ecological issue (e.g., pp. 146–147) in the Biological Evaluation and summarized in the DEIS (p. 3-220): “Wildlife in the Middle Boulder Creek corridor during construction activities would be displaced for varying distances and for varying periods of time, depending on the species affected. Thereafter, most of the corridor function would resume, although it would be impaired from what is currently available by reduced forest cover providing less visual and noise attenuation from existing and ongoing human disturbances north of the creek. Habitat along the south side of the creek would remain physically isolated from the relatively heavy levels of dispersed recreational activity (e.g., vehicles, hiking, biking, skiing, snowshoeing, etc.), limited almost entirely to the north side of the creek” (p. 3-221). “In EMR’s proposed SUP boundary adjustment, the affected portion of the Middle Boulder Creek corridor would remain more effective than any portion of the corridor associated with spring through fall residential habitation in the Town of Eldora” (p. 3-221).

**8.3.15 One of the few analyses that concludes that the proposal will affect a species is Canada lynx. P. 3-199 states that, “Alternative 2’s collective effects on lynx foraging, sheltering, and breeding would exceed the definitions of insignificant and discountable [referencing a 1998 federal document]. Therefore, Alternative 2 warrants a “may affect, likely to adversely affect” determination for Canada lynx” (emphasis in text). Yet this conclusion is not even presented in Table 2-5 – Summary Comparison of Consequences. 40 CFR 1502.14, as cited on p. 2-47, calls Chapter 2 “...the heart of the...” DEIS, and that it should “...present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public” (emphasis added). Instead, Table 2-5 includes no conclusion on the impacts to lynx, rather simply provides a series of acreage figures, without context. This is true for numerous species in Table 2-5 – no conclusions are included, but rather a simple statement of acreages affected. Table 2-5 does not sharply define the issues nor provide a clear basis for choice.**

Table 2-5 in the DEIS included the effect determination for Canada lynx, “May affect, likely to adversely affect” (DEIS p. 2-65).

**8.3.16 The statement about the impacted area representing “an insignificant proportion of the total potential range...on the Forest” is repeated for nearly every wildlife species in the document, and is not germane to the analyses in an EIS. How many impacted acres would entail a “significant” proportion for any species’ habitat?**

Following USFS direction for R2 species and MIS, potential project effects are related to the scale of potential project effects at the Forest level.

**8.3.17 The DEIS conclusions on the loss of elk and mule deer habitat values is of interest. The action alternatives would have minor to moderate negative, permanent effects on elk and mule deer spring through fall habitats. As stated in the DEIS (page 3-216) Habitat effectiveness of these seasonal ranges would be reduced by habitat fragmentation and low levels of human activities (summer maintenance and dispersed recreation) in a larger area surrounding the habitat conversion. Construction activity displacement effects would persist for years (longer for elk than deer) and while full recovery cannot be assumed, it is possible that elk use could largely return to former levels after about seven years, as long as human use remains near current environmental baseline levels. Otherwise, most current elk use would be lost during and after intervals of human activity.” But there is a reasonable likelihood that human activity levels will not remain at current baseline levels during the summer. The “emergency access” bridge will provide a direct link for recreationists on the Fourth of July road. Both the ski area and the Forest Service have demonstrated a poor capability to control unauthorized use of their lands. And the trend for ski areas, supported by Federal legislation, is to provide more summer recreation.**

Impacts to elk and mule deer were discussed and disclosed in the DEIS (pp. 3-216 and 3-240). Alternative 2 would result in a loss of approximately 64.8 acres of potential elk and mule deer habitat (DEIS p. 2-64). Alternative 3 would result in a loss of approximately 58.9 acres of potential elk and mule deer habitat (DEIS p. 2-64).

Refer to Response 8.3.20 for a discussion of summer recreation levels. Additionally, EMR has no future plans for summer recreation at the ski area.

The signed gate on the emergency access bridge would be designed to exclude people from using it to access the south side of the creek. Currently during periods of low streamflow the south side of the creek is easily accessible. The game trails south of the creek that may be used by recreationists to move upstream along the creek do not extend far upstream, and terrain does not facilitate continued movements as an alternate route west. This potential route is a difficult and time-consuming route to access points to the west and it is not anticipated that this route would experience high use.

**8.3.18 The discussion of the cumulative effects to wildlife species begins on p. 3-245, with the recognition that effects from the 2011 Master Plan are to be considered. However, throughout the rest of this section, up to p. 3-256, any impacts from the not-currently-proposed aspects of the Master Plan appear to be systematically ignored. For example, no acreage figures are presented for the additional 7 or 8 ski runs, nor are either of the 2 new ski lifts – Moose Glade Express and Four O’Clock – mentioned. The Canada lynx**

discussion on p. 3-246 has no mention of further impacts to lynx habitat that would occur from the future projects documented in the Master Plan. The same is true for Northern goshawk on p. 3-248. A long list of other projects is listed on p. 3-249, but the Master Plan is not among them. For the projects that are listed—about eight—the conclusion is that these projects “would have beneficial and negative effects to potential goshawk foraging and nesting habitat that could also be affected by Alternatives 2 and 3.” What does this mean? Of course there might be beneficial and negative effects, but what are they? How does the proposal add to or subtract from effects cause by the ski area proposal? Cumulative impact analysis would simply be a paper exercise if all that was required was to provide of list of other regional projects and conclude that some would be beneficial and some detrimental. Title 40 of the Code of Federal Regulations, at 1508.7, defines cumulative impact as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (emphasis added). The DEIS’s analyses of cumulative impacts are insufficient.

The technical documents upon which the DEIS is based make distinctions between how past, present, and future actions have affected the resources considered, and make further distinctions between what reasonably certain and reasonably foreseeable project require consideration, based on Section 7 and NEPA guidance. For Federally-listed and proposed species, the NEPA cumulative effects discussions are contained in the Biological Assessment documents. The lists of cumulative effects projects contained at the end of the technical documents are intended to be comprehensive to the resources considered in those documents. Within the individual species accounts, consideration of all cumulative effects projects listed at the end of the document was incorporated by reference. Some accounts make specific reference to cumulative effects projects that could have a greater influence on that particular species, but even where no mention of a specific project is made, all projects were considered in the analysis if it was applicable to that particular species. The introduction to the Cumulative Effects Projects section of the Biological Evaluation (p. 182) contains additional explanation. Lastly, even with the consideration of the additive cumulative effects, the action alternatives would not result in significant, negative effects on those considered R2 species and MIS at the Forest level.

**8.3.19 The willow carr along MBC is an important habitat component for moose and this corridor is a primary movement area for moose migrating east and west during different times of the year. In the CPW Species Activity Mapping data base this stretch of MBC is designated a moose priority area, concentration area and summer range. Increased noise pollution and human activity along the south side of MBC could severely impact moose migration patterns. Additional human use in the area may also concentrate moose and people to the extent that it creates safety issues similar to the moose attack last summer in the Peaceful Valley area of the Boulder Ranger district. The DEIS mentions that MBC adjacent to the proposed expansion area represents a small portion of overall range for moose. This statement is true in the context of overall range, but is not accurate in relation to primary movement corridors, and quality forage areas typically associated with riparian areas similar to MBC. Willow carrs in the MBC watershed and adjacent areas are limited in**

**overall size and availability and are therefore important components of moose productivity and health in this particular area.**

Moose are not a species normally addressed in environmental analyses on the ARP. Normally, general moose habitat values would be captured under those considered under the elk and mule deer, as other species that those MIS represent. Had moose been considered in greater detail, the analysis would have disclosed the additional considerations and insights offered in the above CPW comment. Nevertheless, they were addressed in the Biological Evaluation (pp. 152–153) as an animal species of local concern identified in public scoping. This discussion was summarized in the DEIS (p. 3-222). As disclosed in the DEIS, the most important impacts to moose habitat under Alternative 2 would relate to the floodplain terrace along Middle Boulder Creek. However, these areas represent a small portion of their overall home ranges. The effects of Alternative 2 would largely be those associated with initial forest clearing and infrastructure installation that would likely be confined to a single construction season. Animals temporarily displaced by those activities would gradually return to that area along Middle Boulder Creek as part of their daily and seasonal patterns. Thereafter, ski area-related disturbances in that area would be limited to base terminal maintenance and possibly ski trail mowing that would amount to days of maintenance activity per summer season. Moose should continue using that area the same way that they use other developed portions of the ski area. The effects of Alternative 2 would not block or restrict moose movements. Although moose responses to ski area activities (including snowmaking) are poorly understood because individuals associated with the expanding population resulting from their 1978 to 1979 introductions are just starting to involve ski areas, if moose respond in the same way as mule deer and elk, seasonal movement patterns should be largely unaffected. There will likely be no discernable difference in moose use of EMR with or without Alternative 2. It should also be noted that at present the terrace on the south side of Middle Boulder Creek is hardly isolated from and unused by humans. During summer, cars are parked along the road, relatively high numbers of hikers and unleashed dogs travel along the road and along the volunteer trail that has developed along the north side of the creek, and people use rocks to cross the creek in local areas after peak flow periods (starting in August, depending on the year). There are campfire rings, a dilapidated lean-to, and a trail along most of the terrace south of the creek.

Regarding additional human use in the area that may result in concentrating moose and people and creating safety issues similar to the 2013 Peaceful Valley incident, that incident involved a moose with calves and a hiker with “voice-controlled” dogs. Alternative 2 would not increase summer, public, recreational use in any area. CPW’s statement regarding the Peaceful Valley incident is also applicable to the increasing recreational use in and beyond the Hessie area: “It’s important that all recreationists know there is always the potential to encounter moose, as well as bears, elk, and lions in the back country and along Front Range trails. Keeping dogs on a leash and keeping your distance from wildlife is essential for the health and safety of all involved” (L. Rogstad, Boulder Area Wildlife Manager).

**8.3.20 The DEIS states that “the additional negative effects of ski area development on effective habitat under both alternatives would be less recognized outside the ski season when most wildlife are resident and most human activity is absent.” The potential recreational access issues on the south side of MBC outside the ski season have not been addressed in the DEIS. Again, there is a likelihood that recreationists will use the bridge crossing over MBC to access the forest and Indian Peaks Wilderness further to the west, potentially increasing use and social trails thereby impacting wildlife in areas where human activity is supposed to be absent.**

See Response 8.3.17. The effects of potential recreational access issues on the south side of MBC outside the ski season were briefly considered in the Biological Evaluation (p. 137). That level of analysis was considered appropriate because of the following considerations: (1) the proximity of that habitat to moderate to high levels of recreational use on the north side of the creek that currently influence wildlife use, (2) the fact that such access would be effectively restricted by the proposed gate and with subsequent adaptive management if needed, (3) that even if such access occurred, it would not provide a practical, alternate, parallel access into the Lost Lake area, and (4) because it would be an illegal activity. Human presence on the south side of Middle Boulder Creek is not anticipated to increase because the gate on the bridge across Middle Boulder Creek can be designed to effectively block unauthorized access. Authorized bridge use would be limited to construction access and authorized EMR personnel. As indicated in Response 8.3.19, people currently cross the creek in localized areas after peak flow periods (typically beginning in August). Additionally, recreational users would be unlikely to access the Indian Peaks Wilderness on the south side of Middle Boulder Creek because trail P-6 would only provide an easy route for a short distance, and the topography and dense vegetation to the west of P-6 would likely deter foot travel in this area. Lastly, if unauthorized access across the bridge becomes an issue, adaptive management would be implemented to resolve the problem.

**8.3.21 The previous issues only address non ski resort related recreation adjacent to the ski area. At this time commercial summer recreation does not exist at EMR. If future commercial summer recreation were allowed it would have additional impacts on wildlife resources using the south side of MBC. Year around recreational use on both sides of the corridor coupled with increased year around use on the expanded SUP area would most likely severely limit wildlife use along both sides of MBC.**

See Response 8.3.17. No additional summer recreation is proposed at EMR under the action alternatives. EMR has no future plans for summer recreation at the ski area.

**8.3.22 The DEIS describes potential noise pollution related issues regarding EMR operations (snow making, lift operations, motorized equipment and vehicles). However, these issues are only related to impacts to the Town of Eldora and human activity adjacent to EMR. There is no description or analysis of how increased noise pollution will affect wildlife that use the MBC corridor and adjacent areas during fall and winter EMR operations. Many wildlife species including terrestrial and avian fauna do not respond well to noise pollution. This could potentially further displace wildlife from their habitats and migration corridors. MBC drainage in this vicinity is designated as an elk summer concentration area in the**

**CPW Species Activity Mapping data base. Elk begin migrating east from the MBC watershed in mid to late October when snow begins to accumulate at higher elevations and snowmaking operations begin at EMR. The primary elk movement corridors originate from the upper reaches of the MBC watershed and Chittenden Mountain and progress east along Mineral Mountain and east along the slopes south of MBC and along the MBC corridor. This could potentially interfere with or eliminate a migration corridor due to the sensitivity of elk to artificial noise and human activity, not to mention other new construction activities related to alternative 2 that could potentially displace elk for many years.**

Snowmaking at ski areas generally begins in late September or early October and often extends into January. This generally overlaps with the entire fall big game migration period. Prior to ski area opening, snowmaking guns may be operated 24 hours a day. Snowmaking guns are generally operated only at night once runs are opened to the public. Despite the loud noise associated with the operating guns, big game largely ignore the noise as long as no humans are present. It is the human activity, not the noise per se, that restricts and deflects wildlife use. Because of the relatively large size of ski areas, big game generally drift through active snowmaking lines at most ski areas with snowmaking, as they respond to increasing snow depth at higher elevations. These movements generally occur at night or dawn/dusk hours before the ski area opens to the public. At some ski areas (e.g., Vail's north side), hundreds of deer and elk move through active snowmaking terrain during their fall migration across and down the ski area (e.g., Thompson 1986a,b). It is likely that big game movements through the ski area would adjust to the additional snowmaking and continue through the ski area, as they do with the existing snowmaking.

**8.3.23 Road Network Mountain roads will be required for construction and maintenance of both terminals of each planned lift. The impacts created by increasing and improving a road network will create habitat fragmentation, increase sedimentation, block wildlife migration corridors, open up forest canopies critical to the protection of microclimates and species dependent upon them and change the entire structure and function of the forest ecosystem in these areas.**

As discussed in Chapter 2, some new road spurs would be constructed and maintained to provide access to facilities (DEIS pp. 2-10 and 2-15). Alternative 2 would include approximately 0.6 mile of new road and Alternative 3 would include approximately 0.3 mile of new road. These new spurs would extend from existing mountain roads and, in some cases, existing ski trails. These new roads would have no additional habitat effects. Furthermore, all of these roads would be closed to public vehicle use, further minimizing impacts to wildlife habitat.

Additionally, the impacts of road construction on water quality are discussed in the DEIS, Chapter 3, Section J – Watershed, Wetlands, and Soils.

**8.3.24 The proposed glade terrain projects should also improve the productivity of the forest understory for a variety of mammals and avian species. A more open forest will allow understory plant species to thrive in the environment much similar to what is observed after a forest is thinned. The traditional trails, glades, and historical forest cover will create**

**a mosaic effect which will add needed diversity in a fairly even aged forest stand. However, extreme winds in this area may cause excessive scouring of snow, resulting in loss of moisture available to plants, in areas opened excessively by forest thinning. Therefore, careful consideration should be given to design of newly constructed and improved trails and glades to insure that snow retention is not decreased by wind scour due to thinning projects.**

Consideration has been given to wind scour in the design of the proposed trails. In general, the average height of the vegetation on the windward side of the trails is used as a guide to determine trail width and reduce wind effects. Typically trails are designed to be approximately 1.5 to 1.75 times the height of the vegetation. Therefore, if the average tree height is approximately 50 feet (at EMR, the average tree height is slightly higher, approximately 60 to 75 feet), the recommended trail width would be approximately 75 to 87.5 feet. Thus with consideration given to the above principles, the proposed trails are generally 75 to 100 feet wide. Within tree and gladed skiing areas trees are typically much closer together (approximately 30 feet) which would minimize the effects of wind scour in these areas.

**8.3.25 CPW supports specific aspects of the expansion and proposed projects detailed in option 2 and/or 3 at EMR as they will likely improve habitat quality for many wildlife species. As mentioned in our previous comments during the scoping process there are several components of the expansion and proposed projects that may benefit wildlife that utilize EMR during different times of the year. The proposed development of traditional trails will enhance forest edge and openings. The creation of edge and opening will improve the diversity and productivity of forage plants used by multiple species including dusky grouse, mule deer, elk, moose, and black bear to name a few, by increasing available biomass of forbs, grasses, and shrubs. Many other small mammals and avian species will certainly benefit from the creation of additional edge and forest openings. Interspersion of additional openings within dense coniferous lodgepole woods will improve availability of roosting/resting habitat in close proximity to quality forage.**

The DEIS, Chapter 3, Section H – Fish and Wildlife discusses all effects of the alternatives on wildlife, including beneficial effects from habitat modifications and diversification.

**8.3.26 INSTALLATION OF THE PROPOSED NEW LIFTS AND ASSOCIATED SKI RUNS WOULD REDUCE OR ELIMINATE GOOD WILDLIFE HABITAT.** There is high quality wildlife habitat in the area proposed for expansion. Overall, about 20 percent of the land in EMR is considered to be effective habitat, defined as habitat that is mostly undisturbed. DEIS at 3-188; see full definition in fn 4 below. The larger intertrail islands especially support effective habitat. Id. at 3-218. This includes the large intertrail islands east of the Corona lift, and the existing Bryan Glades, which would be further cut under the proposed action. Id. at 3-188. Notably, 60 percent of the area of the proposed habitat expansion toward Middle Boulder Creek, i. e., from the existing SUP boundary to the proposed new one, is effective habitat. Ibid. However, implementing the proposed action would destroy much of the existing effective habitat: Alternative 2 (Alternative 2 more so than Alternative 3) would fragment and impair effective habitat in the EMR project area with ski trails and lift corridors. Id. at 3-218. Some interior species, i. e., those needing a continuous forest

canopy, could disappear from the area. The effect on habitat would likely violate two Forest Plan guidelines: Avoid disconnecting or severing intact areas of effective habitat with new open roads and trails... When developing new open roads and trails, do not reduce contiguous areas of effective habitat to less than 250 acres or further reduce effective habitat of 20 to 250 acres in size, except where access is required by law... Plan at 31. The DEIS states that the polygon wrapping around the SUP to the west would still have more than 250 acres of effective habitat. *Id.* at 3-219. However, some of that area is private land, including the portion just outside the SUP. Maintaining effectiveness cannot be assured in this area. Also, if the Moose Glades are developed, as proposed in the Master Plan and under alternative 3 (see DEIS Figure 4), the 250 acre size requirement would not be met. Habitat effectiveness would be destroyed, disconnected, or severed in winter, when people are present. In the snow-free season, fewer people would be present, except during construction and maintenance, but the habitat would still be fragmented, possibly into areas too small to use for species like marten, golden-crowned kinglet, and olive-sided flycatcher, all of which have been detected at EMR.<sup>7</sup> If human use increases, “most current elk use would be lost during and after intervals of human activity”. *Id.* at 3-240. Also, the trend is toward more and more summer recreation at ski areas, as encouraged by the 2011 passage of the Ski Area Recreation Opportunity Enhancement Act. (16 U.S.C. 497(b) note). Construction of the proposed bridge across Middle Boulder Creek would facilitate greatly increased human use at EMR during the snow-free season, if not also the ski season. This would further decrease the effectiveness of any remaining habitat south of Middle Boulder Creek. (See further discussion below.) The proposed action would also likely violate the following Forest Plan guideline: Additional open roads and trails should not reduce effective habitat below 50 percent by geographic area, or further reduce effective habitat in geographic areas that are already at or below 50 percent on [national forest] land. Plan at 31. At the time the Forest Plan was written (1997), the habitat effectiveness of the Boulder Creeks Geographic Area was 52 percent. Plan at 322. It may now be lower than this due to user-created trails. In any case, much of the habitat in the Placer and Corona Pods would become ineffective with implementation of alternative 2 and subsequent operation of the ski area. That could easily push the habitat effectiveness for the geographic area below 50 percent if it isn’t below this level already, especially if the Moose glades are thinned, as is proposed under alternative 3. (See DEIS at 3-243 and Figure 4.)

Two types of “habitat effectiveness” were discussed in the technical wildlife analyses, (1) the general concept considered for individual species based on their ability to exploit affected and unaffected habitats, and (2) the ecological concept following the ARP effective habitat definition, as described in Biological Evaluation, Section 6.2 (pp. 142–144). This analysis of habitat effectiveness for the Boulder Creeks Geographic Area is based on the best available information. The DEIS acknowledges that Alternatives 2 and 3 would not be consistent with Forest Plan guidelines 107 and 108 (DEIS pp. 3-218 and 3-219). Regarding guideline 109, referenced by the commenter, the DEIS states that both Alternatives 2 and 3 would be consistent with this guideline “because the percentage of effective habitat (52 percent) for the 8,291-acre Boulder Creeks Geographic Area would be reduced by far less than the 166 acres needed to reach the 50 percent threshold” (DEIS pp. 3-219 and 3-243).

**8.3.27 Old Growth.** There is no old growth in the project area (DEIS at 3-137), but some stands now in the late successional stage could develop into old growth if left alone. In fact, the entire SUP is considered an old growth development area. Id. at 3-188. However, cutting per the proposed action would prevent old growth development. Id. at 3-147, 3-217. Even gladed areas that were late successional forest before thinning may not become old growth because of effects of skiing. Id. at 3-217. Stands contiguous to ski runs might not ever become old growth for the same reason, and the fact that the minimum size for old growth is five acres. Ibid. This would not comply with Forest Plan Guideline 120 which states: Maintain or increase habitat effectiveness within identified old growth areas and all old growth sites that are not planned for harvest. Forest Plan at 32. It would also not comply with Plan Goal 116: Maintain or develop a network of existing and future old growth that provides adequate habitat which is well dispersed, effective and accessible to associated wildlife species.

As stated in the DEIS, while there is no old growth in the project area, portions of the EMR project area may have old growth characteristics warranting their classification as developing old growth areas (DEIS p. 3-217). Both action alternatives would be consistent with all Forest Plan goals, objectives, standards, and guideline related to old-growth, with the exception of guideline 120 (DEIS pp. 3-217 and 3-241). Impacts to old growth development areas are described in the DEIS.

**8.3.28 Further, as with numerous species and impact analyses in general, PDC's "have been developed that would minimize" impacts.** Chapter 2 presents over 20 pages of PDC's and BMP's. P. 2-16 states that, "The potential effects of implementing the [alternatives] were analyzed with these PDC applied." For NEPA analyses, it is not appropriate to use such an extremely long list of "mitigating factors" to reduce or negate otherwise significant impacts caused by a project. Even if incorporated into the "terms and conditions of [a new] SUP," there is no assurance that EMR, and particularly the understaffed Forest Service, have the means to follow and enforce 20 pages of such measures. These 20 pages actually represent 320 individual Project Design Criteria and Best Management Practices that are supposed to be followed. For about 50 of these PDC and BMP's, the statement is qualified with terms such as, "if possible," "to the extent possible," "where necessary," "periodically," "to the extent feasible," "to the extent practicable," "minimize," "avoid," and "where it does not present a skier safety concern." How are these nuances to be determined, and who will determine them? In particular, there are four statements such as, "To the extent possible, if flammulated owl nests are detected within impact areas...." There are such statements for flammulated owl, boreal owl, and olive-sided flycatcher nests, and American marten dens. Is this a commitment to survey for such nests and dens before tree removal or construction activity begins? As noted above, a simple taped calling survey for flammulated owls was not even completed as part of the impact analysis. Yet now, more detailed surveys are expected?

The Forest Service would be responsible for enforcing the PDC and BMPs contained in Table 2-3. Because the PDCs are incorporated into the action alternatives and would be required, it is appropriate that the analysis includes these measures.

**8.3.29 Rocky Mountain capshell snail – Impacts to the species are dismissed in two sentences on p. 3-203. The DEIS does not include any data on the species since 1996. In Alternative 2, snowmaking coverage would increase by 58 acres. All snowmaking water comes from Peterson Lake, the species only habitat. It is either likely or possible that water fluctuations in Peterson Lake have contributed to the apparent decline of the population. It is likely that increased snowmaking will increase the severity of water fluctuations in the lake. The existing unpaved parking areas are documented to contribute sediments and pollution to the nearby downstream lake (see p. 3-172). The 560 new unpaved parking spaces will significantly increase these inputs. There is no analysis of these direct impacts. P. 3-203 states that, “...impact zones would not extend to occupied habitat.” Therefore, it concludes, that there will be no impact. Neither of the above potentially major impacts to the lake are recognized or analyzed. Even if the statement that (direct) “impact zones would not extend to occupied habitat” is accepted, the above impacts are indirect and must be analyzed in the DEIS. Further, cumulative impacts must be analyzed; these include the past impacts to the snail population in the lake, as it is somewhat discussed in the Affected Environment. There is, however, no conclusion as to how these past impacts have affected the snail population. Additionally, no data gathering beyond 1996 was attempted, necessary for an adequate analysis of the past, present and reasonably foreseeable future impacts on the snail. The analysis is inadequate.**

Rocky Mountain Capshell Snail is addressed in detail in Section 4.3.1.1 of the Biological Evaluation (pp. 64–68), contained in the project file

**8.3.30 Jolly Jug expansion extends skiable terrain into the Jenny Creek area, with the construction of a new lift, tree removal, snowmaking, noise, and human intrusion into a prime wildlife habitat for moose, elk, deer, fox, and potentially lynx.**

The DEIS, Chapter 3, Section H – Fish and Wildlife discloses impacts to wildlife species in the Jenny Creek area.

## **9.0 WATER/WETLANDS**

### **9.1 Wetlands**

**9.1.1 Alternative 2 also proposes forest overstory removal that will modify and indirectly impact 1.41 acres of forested wetlands, including 0.11 acre of the Corona fen. Overstory removal may change the type and function of affected wetlands, including hydrology, water quality and habitat functions. Currently the Draft EIS does not identify mitigation proposed for the wetland habitat values lost by removing forested overstory with the proposed expansion under Alternative 2. The EPA recommends that the USFS observe EO 11990 and require that the EMR’s proposed action “include all practicable actions to minimize harm to wetlands” by requiring compensation for these lost wetland functions and values. Mitigation for forested wetland overstory may include riparian vegetation plantings of similar species and similar numbers along Boulder Creek or its tributaries within the upper basin.**

Type conversion impacts to wetlands, including fens, are not regulated by the U.S. Army Corps of Engineers under the Clean Water Act (CWA). Presidential EO 11990 requires federal agencies to avoid to the extent practicable, long- and short-term adverse impacts associated with the destruction or modification of wetlands. More specifically, the Order directs federal agencies to avoid new construction in wetlands unless there is no reasonable alternative. The Order states further that where wetlands cannot be avoided, the proposed action must include all practicable measures to minimize harm to wetlands. As required by EO 11990 and the CWA, avoidance and minimization measures must be considered through the planning process. In accordance with EO 11990, the Proposed Action was designed to avoid and minimize impacts to wetlands wherever possible. For this specific location, the proposed ski trail was realigned in the planning process to minimize the amount of overstory vegetation removal that would occur within the delineated wetland boundary. No direct impacts to this wetland would occur.

**9.1.2 Alternative 2 would directly/permanently impact 0.07 acre of wetland due to construction of the proposed bottom terminal of the Corona chairlift. Under the Clean Water Act (CWA), avoidance and minimization measures must be considered through the planning process. Despite the statement that these direct impacts will likely be mitigated by the USFS through purchasing compensatory wetland acreage from a wetland mitigation bank, it cannot be assumed that this impact will be reviewed under a CWA 404 permit issued by the Corps as it may not be a regulated water of the U.S. under the current federal guidance. Therefore, The USFS's responsibility to avoid, minimize and mitigate these wetland impacts may be exclusively driven by EO 11990. We recommend the Final EIS identify potential mitigation sites as close to the impacted area as possible, preferably within the effected sub-watershed.**

The U.S. Army Corps of Engineers documented this wetland in a Preliminary Jurisdictional Determination that classified this wetland as “jurisdictional.” The DEIS includes an analysis of wetland avoidance and minimization measures. The FEIS (Table 2-3) includes a PDC for mitigating these impacts with consideration of where mitigation should be located with deference to locating the mitigation on the ARP within the same watershed.

**9.1.3 The impacts to watershed, soils, and wetlands (including fens) would be considerable, and possibly locally severe. Thus the proposed location of the Placer lift and runs is not acceptable. Putting the Placer lift further up the slope south of Middle Boulder Creek (i. e., within the current SUP boundary) does not appear to be a viable option, either, because of the need for even more grading for a bottom lift terminal and additional vegetation clearing and ground disturbance for an access road. DEIS at 2-40. For these and other reasons discussed throughout these comments, the Placer lift and ski runs must not be constructed, and at least some parts of the proposed Corona Pod expansion must not be implemented.**

The DEIS, Chapter 3, Section J – Watershed, Wetlands, and Soils discloses potential impacts to these resources resulting from all proposed projects. PDC and BMPs have been identified to reduce adverse impacts to watershed, wetlands, and soil resources (DEIS Table 2-3).

**9.1.4 Additionally, due to the slow rate of accumulation of peat in fens, these ecosystems are generally considered to be irreplaceable (Draft EIS, p. 3-295). Because of the irreplaceable nature and rarity of montane fen wetland ecosystems, compensation for these wetland impacts is extremely difficult. The EPA therefore strongly recommends avoidance of these highly valued resources.**

“No wetland fens would be directly impacted by Alternative 2 project activities” (DEIS p. 3-312).

“Indirect impacts to wetlands through forested overstory removal are expected to impact 1.41 acres of wetlands including 0.11 acre of the Corona fen, associated with the proposed Placer chairlift line and associated ski trails on the slope above Middle Boulder Creek. The forested overstory removal would likely cause a change in the species composition of the wetlands away from shade tolerant species to more sun tolerant species. In addition, snow compaction from ski trail grooming and skier use may affect the underlying wetlands by increasing frost depth and delaying plant phenological development” (DEIS p. 3-312).

“In addition, a PDC would be implemented to ensure that the wetland fen below the bottom terminal of the Corona chairlift would not be adversely impacted during construction” (DEIS p. 3-313).

“Likewise, at EMR the effects to fens from snow compaction would also be variable depending on if the area is an intensively groomed ski trail or an off-trail ski glade. For the intensively groomed and compacted ski-trails, the reduction in growing season length of fens could potentially affect ecosystem processes such as production and decomposition and overall site carbon dynamics. However, the high interannual variability in mountain snowpack may dwarf any anthropogenic effects from snow compaction, except in areas receiving early, frequent, and intense use” (DEIS p. 3-313).

**9.1.5 In response to public concerns, Alternative 3 by design largely avoids and minimizes adverse impacts to special aquatic sites, including wetlands and fens. The 0.07 acre impact to wetlands for the Corona chairlift remains, with the indirect impact reduced to 0.51 acre from removal of forested wetland overstory. This indirect impact does not appear to affect the Corona fen. Therefore the proposed project expansion under Alternative 3 is more protective in accordance with EO 11990 wetlands management direction by reducing adverse impacts to wetlands function and values.**

Impacts to wetlands for all alternatives were disclosed in the DEIS, Chapter 3, Section J – Watershed, Wetlands, and Soils.

## **9.2 Water Quality**

**9.2.1 Baseline Water Quality and Stream Health. The Draft EIS addresses water quality only from the perspective of evaluating the State of Colorado 303 d List (see page 3-284) and Stream Health (see page 3-289), which only includes physical and biological aspects, and not an evaluation of water chemistry. The State of Colorado 303 d List only identifies water bodies that are impaired and does not provide information on the health of the water body from the standpoint of water chemistry. The Draft EIS does not identify that water**

chemistry data has been collected in the stream reaches potentially affected by the proposed improvements and projects. Although the physical and biological aspects addressed in the Stream Health section are important an analysis of water chemistry is also needed.

**Recommendation:** The city requests that water quality, for all surface water bodies that may be affected by any project, be characterized through water quality monitoring to establish a water quality “baseline” prior to initiating any of the proposed projects. Baseline water quality should be evaluated at a location(s) upstream of any proposed project areas and at a location(s) downstream of any proposed projects. At a minimum, baseline water quality should be based on at least one year of data, collected at a frequency adequate enough to evaluate possible seasonal effects on water quality and to collect a sufficient amount of data to statistically evaluate possible water quality impacts from proposed projects. After the development of a water quality baseline, water quality monitoring should continue throughout the duration of any proposed projects and data used to evaluate potential water quality impacts during construction and the effectiveness of proposed Project Design Criteria and Best Management Practices. Water quality monitoring should continue post-construction to evaluate long-term Project Design Criteria and Best Management Practices and the overall protection of water quality.

A water quality monitoring program has been incorporated into the FEIS (Table 2-3 p. 2-22) including baseline water quality data collection, monitoring of water quality during construction, and long-term water quality monitoring. If stream health issues are identified through this monitoring program the ARP would determine appropriate mitigation and response measures.

**9.2.2 Construction of a bridge and its road will dump construction related debris in the creek and erode stream banks. Existence of the bridge road will cause rainfall to flow faster from the hillside into the creek, causing additional erosion and stream turbidity. Any kind of winter maintenance of the bridge and road will burden the creek with additional oil, gas and sand. Clearing of trees close to the creek also increases the rate of flow of rainfall into the creek, causing yet more erosion. Construction of a lift and the existence of a lift so close to the creek will create negative impacts to soil, water and noise quality.**

The DEIS, Chapter 3, Section J – Watershed, Wetlands, and Soils discloses potential impacts to the watershed, including erosion and water yield. PDC were developed to minimize potential impacts associated with the proposed bridge over Middle Boulder Creek (DEIS p. 2-24). See Response 9.2.8 for a discussion of the analysis of pollutant runoff.

**9.2.3 The Draft EIS notes that there are no stream segments or lakes within the Study Watersheds included on the Colorado State 303(d) list of impaired waters. However, the mainstem of Middle Boulder Creek is listed under the Monitoring and Evaluation (M&E) list for Cadmium and Copper, and the South Boulder Creek and its tributaries from its headwaters to the outlet of Gross Reservoir are listed under M&E for aquatic life use. While the M&E list is not subject to EPA approval, this listing indicates there may be an issue with approaching limits or exceedances associated with these contaminants/indices. Therefore, further examination may be warranted to ensure that the project will not further exacerbate current water quality conditions.**

A requirement for a water quality monitoring program has been incorporated into the FEIS (Table 2-3 p. 2-22) including baseline water quality data collection, monitoring of water quality during construction, and long-term water quality monitoring. If this program identifies concerns regarding levels of cadmium and copper, the ARP would determine appropriate mitigation and response measures.

**9.2.4 Alternative 2 Proximity to Middle Boulder Creek Alternative 2, specifically the Placer Glades II area, expands skiable terrain very close to Middle Boulder Creek and substantially reduces the existing natural, vegetated buffer between the existing skiable terrain and Middle Boulder Creek. The existing vegetated buffer between the current skiable terrain and Middle Boulder Creek provides a natural buffer to help mitigate possible water quality impacts to Middle Boulder Creek from ski area activities and runoff. Alternative 3 provides a substantially larger natural buffer between skiable terrain, compared to Alternative 2, by limiting the extent of skiable terrain in the direction of Middle Boulder Creek. Recommendation: As previously mentioned the city is not taking a position for or against the proposed alternatives in the Draft EIS, but does request that any project implemented at Eldora Mountain Resort maintain an adequate vegetated buffer between ski area activities and Middle Boulder Creek. In the city's opinion, not expanding ski area operations beyond the existing Special Use Permit (SUP) boundary would maintain an adequate buffer.**

Table 2-3 of the DEIS contains a number of PDC to minimize impacts of proposed projects on water quality, including PDC designed to disconnect road segments in the watersheds containing Middle Boulder Creek. The FEIS (Table 2-3) includes PDC to maximize natural buffers and minimize the amount of clearing necessary to achieve an effective ski trail. This PDC applies to the collector ski trail to parallels Middle Boulder Creek and the bottom of the Placer Glades II area.

A larger natural buffer would exist for Alternative 3 compared to Alternative 2. For this reason, the risk of short-term construction related sedimentation to Middle Boulder Creek is greater for Alternative 2, when compared to Alternative 3.

**9.2.5 Ski wax can contain toxic chemicals including perfluorinated chemicals. Levels of perfluorinated carbonylates, are known to be stable in the environment and to cause cancer, birth defects, thyroid dysfunction, increased cardiovascular risk, hormone and immune system disruption, birth and developmental defects and liver toxicity.**  
**(<http://www.environmentalhealthnews.org/ehs/news/ski-wax-chemicals>)**

Independent, peer-reviewed publications on this subject are extremely limited. While certain types of ski wax do contain fluorocarbons, it is important to note that the amount of fluorinated chemicals released as a direct result of ski wax use is negligible as compared to other sources, such as production and use of products containing Teflon.<sup>3</sup> Additionally, ski wax containing fluorocarbons is significantly more expensive than other varieties of ski wax that contain hydrocarbons. Thus, most skiers do not use wax that

---

<sup>3</sup> Plassmann, M.,

contains fluorocarbons and it is expected that only trace amounts of these ski wax chemicals would be deposited in the environment.

A water quality monitoring program has been incorporated into the FEIS including baseline water quality data collection, monitoring of water quality during construction, and long-term water quality monitoring (FEIS Table 2-3 p. 2-22). If this program identifies concerns regarding fluorocarbons, the ARP would determine appropriate response measures.

- 9.2.6 Vegetation Management Effects on Water Quality.** The Draft EIS states that the Eldora Mountain Resort has applied Carbaryl for the management of Mountain Pine Beetle since 2008 (see page 1-6). Under Alternative 2 and 3 it is stated in the Draft EIS that the use of Carbaryl will continue following Forest Service application specifications.  
**Recommendation:** The city requests any water quality data collected to evaluate the presence of Carbaryl in surface water be provided. In addition, the city requests information on any current Carbaryl water quality monitoring, including location and frequency, and whether Carbaryl monitoring will be conducted in the future.

Neither action alternative includes an increase or expansion of Carbaryl application at EMR. A requirement for a water quality monitoring program has been incorporated into the FEIS (Table 2-3 p. 2-22) including baseline water quality data collection, monitoring of water quality during construction, and long-term water quality monitoring. If this program identifies concerns regarding levels of Carbaryl, the ARP would determine appropriate response measures.

- 9.2.7 Snowmaking Effects on Water Quality.** The Draft EIS does not include information on the use of additives to enhance snowmaking for existing snowmaking or proposed expanded snowmaking. It is the city's understanding that the Eldora Mountain Resort currently uses Snomax to enhance snowmaking and the city assumes Snomax would be used as part of the additional snowmaking coverage identified in Alternative 2 and 3. The city has researched Snomax to gain a better understanding of the product and to identify potential negative impacts to human health or the environment. Snomax is identified as an ice-nucleating protein derived from naturally occurring bacteria, *Pseudomonas syringae*. Snomax is created through the fermentation process and the bacteria are harvested, sterilized, filtered, freeze dried, and pelletized. The sterilization process is to ensure that no live organisms remain and only the protein shell of the organism is used. The protein shell contains endotoxins in the cell wall, and endotoxins are a naturally occurring biological molecule that readily degrades in sunlight. There are no existing or proposed standards or limits (water or other) for endotoxins in drinking water in the United States.  
**Recommendation:** In the city's July 13, 2012 Scoping letter the city requested information on the use, and potential impacts, of using Snomax (or any other additive) be included in the Draft EIS. This request was not addressed in the Draft EIS. The city again requests that verification and information on the use of Snomax be provided, including current and future proposed uses, and information on potential environmental and water quality impacts from using snowmaking additives, including Snomax. The city also requests that any environmental or water quality data collected to evaluate Snomax in the environment or water (specifically endotoxins) in the area of the Eldora Mountain Resort be provided.

Most ski resorts use snow inducer additives to enhance production of man-made snow. EMR uses approximately 165 pounds of SNOMAX during a typical snowmaking season (the rate of application of SNOMAX depends on climatic variables such as air temperature, relative humidity, time of day, and winds). EMR uses SNOMAX for a part of the season when the temperatures are between 15 and 26 degrees. No changes to the rate of application of SNOMAX are anticipated under the either action alternative.

The ice-nucleating proteins contained in SNOMAX are derived from a naturally-occurring bacterium called *Pseudomonas Syringae*, which is not pathogenic to humans.<sup>4</sup> SNOMAX does not contain any chemicals. The bacterium is deactivated during the production process, which includes freeze-drying, grinding, and sterilization to ensure no living micro-organism remain in the final product. Different agencies have regulated the use of SNOMAX for commercial applications, including the U.S. Department of Agriculture, the U.S. Forest Service, and Environment Canada.<sup>5</sup> Research has shown that endotoxins found in artificial snow made with SNOMAX do not present a health danger to humans “beyond that of exposure to *Pseudomonas Syringae* endotoxins naturally present in snow.”<sup>6</sup> Furthermore, a 2004 report issued by France’s National Research Institute of Science and Technology for Environment and Agriculture concluded that SNOMAX had no impact on soils and plant cover.<sup>7</sup>

**9.2.8 Threats to Water Quality. If the ski area expands on the north side, it will destroy the 980-foot wide buffer that presently absorbs erosion and chemicals from EMR. The construction of new runs on the north side of Bryan Mountain will increase the likelihood of sediment runoff into Boulder Creek. Expansion will also likely increase the runoff of pollutants from snowmobiles, maintenance vehicles, snow grooming machinery, and other mechanized forms of EMR operations.**

The impacts of vegetation removal and ground disturbance on water quality are analyzed in Chapter 3, Section J – Watershed, Wetlands, and Soils of the DEIS. Additionally, EMR has protocols in place to respond to oil/gas/hydraulic fluid leaks which would minimize potential impacts to stream health in Middle Boulder Creek.

**9.2.9 THE ACTION ALTERNATIVES WOULD NOT PROTECT RIPARIAN AND WATERSHED INTEGRITY, SOIL STABILITY, OR WATER QUALITY. Under the proposed action, tree removal in the water influence zone (WIZ) could occur within 50 feet of streams. DEIS at 3-213, 3-237. Indeed, 12 acres of tree clearing would occur in the WIZ, with 1.3 acres graded. DEIS at 3-308. This is likely to violate Forest Service direction: In the water influence zone next to perennial and intermittent streams, lakes, and wetlands, allow only those actions that maintain or improve long-term stream health and riparian ecosystem condition. Watershed Conservation Practices Handbook (WCPH), FSH 2509.25, section 12.1. Cutting trees, and especially grading, cannot be considered actions that will**

---

<sup>4</sup> Skirvin, R.M. et al., 2000

<sup>5</sup> USDA Forest Service, 2005d

<sup>6</sup> Lagriffoul, A. et al., 2010

<sup>7</sup> Dinger, F. et al., 2004

**“maintain or improve stream health”. The DEIS states that minor erosion and deposition of sediment in waterways is occurring on existing roads and ski runs. Id. at 3-301, 3-303. Grading appears to intensify these effects. Ibid. Some of the proposed new ski runs would be graded, as would the new lift terminals. Id. at 3- 315. Specifically, 2.7 acres of land would be graded in areas with potential for landslides. DEIS at 3-318. The highest area of concern is in the area above Middle Boulder Creek, where: runs would be cut for the Placer Pod, the Placer lift would be installed, and additional runs would be cut in the Corona Pod. This area has “severe limitations for natural-surface roads and trails. Id. 3-300. It also has severe limitations for revegetation of disturbed areas. Ibid.**

Impacts to watershed and soil resources were disclosed in Chapter 3, Section J – Watershed, Wetlands, and Soils of the DEIS. The effects of tree removal and terrain grading were evaluated against stream health conditions measured in Middle Boulder Creek. “As shown in Table 3J-8, the Study Reach on Middle Boulder Creek was classified as Robust for the undercut banks and fine sediments metrics, and as Diminished for bank stability and large wood debris (LWD). As discussed in the Affected Environment, tree removal within the WIZ can negatively affect the LWD stream health metric while trail construction and/or terrain grading may impact stream health in metrics such as banks stability and channel sedimentation. MM-3 included in the WCPH states that only those projects that maintain or improve long-term stream health should be allowed in the WIZ next to perennial and intermittent streams” (DEIS p. 3-308).

As stated on page 3-315 of the DEIS, “impacts from ground disturbance activities in Alternative 2 would include an increase in soil erosion and sedimentation, changes to soil physical and chemical characteristics reducing soil productivity, permanent loss of soil resources, and a potential increase in landslide and slump hazards (refer to Table 3J-22).” In total, “under Alternative 2 there would be 25 acres of soil that would be disturbed by grading and approximately 156.6 acres of soil disturbance resulting from tree removal operations. There would be a 14.1 acres permanent loss of soils due to parking lot, chairlift and facility construction. Impacts from grading and tree removal in Alternative 2 would include an increase in soil erosion and sedimentation, changes to soil physical and chemical characteristics reducing soil productivity, permanent loss of soil resources, and a potential increase in landslide and slump hazards. With implementation of PDC, these impacts would be minimized and consistent with WCPH and Forest Plan direction” (DEIS p. 3-319).

**9.2.10 Water Quality Impacts. The Ski Area is proposing to add snowmaking equipment for 58 additional acres of terrain. Most if not all of the runoff from snowmaking will be into Middle Boulder Creek near Hessie, which then flows through the townsite of Eldora where all homes with water are on wells. In addition, there will be construction traffic crossing Middle Boulder Creek at Hessie for installation of a new chairlift, replacement of an existing chairlift, vegetative and tree removal/thinning for ski terrain, road improvements on CR 130, and other earth disturbance activities. While most of these activities will be on USFS lands, some will be on private land on the south side of Middle Boulder Creek, and all will be draining into that creek. Some new trail and lift construction may also take place in the Jenny Creek drainage on the south (Gilpin County) side of the existing Ski Area. The**

**Final EIS should explain in more detail how impacts to water quality will be avoided, minimized, or mitigated, as well as require the Ski Area to obtain all applicable U.S. Corps of Engineers permits for work in waterways.**

Table 2-3 (DEIS p. 2-17) contains extensive PDC and BMPs designed to minimize and avoid adverse impacts to water quality. Specific PDC were developed for individual watersheds in order to address particular concerns relating to proposed projects. For example, one of the PDCs for the Corona and Indian Peaks Watersheds for Alternative 2 is designed to “minimize the impacts of 0.2 acre of existing roads currently connected to the perennial stream proximate to the Corona chairlift bottom terminal and effectively reduce the length of the total stream network” (DEIS p. 3-309). Construction and implementation of the action alternatives following the PDC outlined in Chapter 3, Section J – Watershed, Wetlands, and Soils (as well as Table 2-3) would be consistent with the WCPH and Forest Plan standards and would not adversely impact the health of Middle Boulder Creek.

Table 2-3 (DEIS p. 2-17) contains the following PDC: “a CWA Section 404 Permit would be required by the USACE prior to disturbance of any waters of the U.S., including wetlands. The permit application and permit would require the preparation and approval of a mitigation plan for the impacted stream channel and wetlands. This mitigation plan will also be submitted, reviewed and must be approved by the Forest hydrologist prior to implementation.”

The proposed projects would not necessitate road improvements on CR 130. This information has been corrected in the FEIS (p. 3-22). A Professional Engineer with Shea Carr Jewell, an engineering and planning firm, completed a field review of CR 130 to inspect the ability of the roadway to accommodate construction access for the proposed Placer chairlift. Based on this review, road improvements would not be necessary to complete the proposed construction. This memo is included in the project file.

**9.2.11 Additionally, the Draft EIS discusses the State of Colorado’s Guidelines on Individual Sewage Disposal Systems (ISDS) (2004 reference) in regard to the distance between wetlands or surface waters and the proposed sewage disposal system. The Draft EIS concludes that there will be no impact to the water quality of the Study Watersheds as a consequence of installation of the sewage disposal systems (p. 3- 307). Based on the repeal of the ISDS Guidelines and recent adoption of a new replacement Water Quality Control Commission regulation (Regulation 43: On-Site Wastewater Treatment System Regulation, May 2013), the regulation regarding onsite wastewater systems has been significantly revised. We recommend that this section be updated if needed in the Final EIS to ensure that the conclusions are consistent with the new regulation.**

The FEIS has been updated to include the revised regulation on wastewater systems (FEIS Chapter 3, Section J – Watershed, Wetlands, and Soils, Direct and Indirect Environmental Consequences p. 3-308).

**9.2.12 Septic System Expansion to Address New and Expanded On-Mountain Facilities Depending on the location, and type of system, sub-surface septic systems and leach fields can contribute to surface water quality degradation. Both Alternative 2 and Alternative 3 propose the addition of a new on-mountain facility (Challenge Mountain Facility) and**

expansion of an existing on-mountain facility (lookout Facility). For both facilities the Draft EIS states that “Onsite septic systems would accommodate sewage disposal for the proposed Lookout facility and Challenge Mountain Facility and both facilities will treat and dispose wastewater through a septic tank-leach field sewage disposal system”. Footnote 20 on page 2-7 of the Draft EIS also states that “The current septic system and the Lookout facility would be expanded to accommodate additional use”. On page 3-307 of the Draft EIS it is stated that “Cold soil temperatures can lead to freezing problems and reduction in the microbial activity in septic systems. These characteristics would indicate, at the preliminary level of analysis, that the type of soil present at the location of the proposed sewage disposal shows limitations for the performance of septic tanks and absorption fields. However these limitations can be overcome with proper engineering design and maintenance”.

**Recommendation:** The city requests that information be provided on the “proper engineering and design and maintenance” that will be implemented to adequately treat septic system waste and whether the systems will require a Site Location and Design Approval. The city also requests detail be provided on specific regulations and requirements that will be followed when designing and constructing septic systems.

No additional information is available at this time regarding the engineering, design, and maintenance of the proposed septic system. Design and construction will comply with CDPHE’s Regulation #43, which includes a requirement for commercial facilities’ septic systems to obtain a permit from the EPA. State and Boulder County regulations (and the associated permit process) include specific direction regarding site evaluation and selection, system design, operation and maintenance. The FEIS has been updated to clarify that the proposed septic systems will comply with all State and County regulations, thereby addressing water quality and other environmental concerns (FEIS Chapter 3, Section J – Watershed, Wetlands, and Soils, Direct and Indirect Environmental Consequences p. 3-308).

### **9.3 Water Quantity**

#### **9.3.1 How could the Corona watershed have a decrease in peak flow (id. at 3-305) when eight percent more water would be used for snowmaking in this watershed (3-304)? The adjacent watershed, Indian Peaks, would experience a 2 percent increase in peak flow with a nine percent increase in water used for snowmaking. Ibid.**

Many factors affect how WRENS models water yield and peak flow, including slope aspect and snow accumulation and scour. The Corona Watershed would experience a slight decrease in peak flow (-2 percent), even with an 8 percent increase in snowmaking water, due to the different snow scour/snow accumulation factor resulting from the proposed clear cut. The proposed clear cut within the Corona Watershed would consist of relatively narrow ski trails, averaging about 105 feet wide. This reduces the average size of the openings in the direction of the prevailing winds, as compared to existing conditions, with the associated reduction in the snow accumulation ratio from 1.32 to 1.00. Also, it is important to keep in mind that the 2 percent difference in peak discharge corresponds to a modeled change from 5.47 to 5.35 cfs, which for all practical purposes represents a negligible change. Additional clarification has been added to the FEIS (Chapter 3, Section J – Watershed, Wetlands, and Soils, Direct and Indirect Environmental Consequences p. 3-306) regarding this analysis.

**9.3.2 Water use is an issue that must be addressed for a number of reasons: Snowmaking under the upgrade plan will increase. Expanded snow making coverage is to include all new and traditional trails. Snow making covers almost all groomed terrain ensuring optimal snow conditions. EMR water supply is diverted from Middle Boulder Creek and South Boulder Creek basins, in Boulder County and Gilpin County. In addition they have rights to Kettle Pond and Peterson Lake. Fully reusable water is used in snowmaking and returned to the lakes and streams. This statement is questionable. (Water diversion and storage rights can always be challenged. Political necessity in some cases can ultimately override current usage). The question is how much water actually returns in pristine form and how much is really lost to transpiration, evaporation and ground water recharge that will not be returned to surface flow? What is the impact to the riparian ecosystem that the water is diverted from? What is the impact on agriculture and urban usage of this water in the long term? What is the impact on stream flow as climate change decreases snow pack? Is this diverted water fully reusable? All these questions have to be taken into consideration.**

EMR has a portfolio of water rights specifically decreed by the Water Court for snowmaking. Decreed water rights are administered by the State Engineer's Office under the Prior Appropriation System but, once decreed, they cannot be challenged. The water rights section of Chapter 3, Section J – Watershed, Wetlands, and Soils provides a description of the various water rights owned by EMR. Additionally, the section includes detail regarding depletions (water lost to evapotranspiration, etc.).

**9.3.3 We recommend that the USFS expand upon the discussion of EMR's proposal to improve its snowmaking practices from an efficiency standpoint (Draft EIS, p. 3-304) to further support the statement that the average snowmaking water usage would not increase under the Proposed Action. We recommend that additional details, such as timing of implementation and operational design, be included in the Final EIS to address any concerns related to water quality (e.g., impacts to streams, soils, vegetation or wetlands on or below the ski area) or quantity (e.g., timing and magnitude of withdrawals that may impact critical instream flows, aquatic habitat, etc.) associated with additional snowmaking operations and/or increased withdrawals. Additionally, we recommend that a map with both current snowmaking coverage and proposed new coverage be included in the EIS.**

Annual snowmaking water use at EMR varies depending on weather and natural conditions, but typically ranges between approximately 220 and 300 acre feet. A PDC has been incorporated into the FEIS stating that "Annual water use from snowmaking will not exceed EMR's maximum water right" (Table 2-3 p. 2-22).

Maps of snowmaking coverage for each alternative have been incorporated into the FEIS (Figures 14, 15 and 16).

## **9.4 General**

**9.4.1 Stormwater Discharge. The EIS indicates that a new Challenge Mountain Facility will be constructed. Under the provisions of the Colorado Water Quality Control Act, the Ski Area may need to obtain a general construction permit for stormwater discharges associated with development of a property greater than 1 acre or as part of a larger common plan of**

**development or sale that will disturb at least 1 acre. The applicant should ensure all efforts are made to prevent any sediment discharge to waters of the State. In addition, if there is a need to dewater the site, the owner or operator must obtain a Construction Dewatering Permit from CDPHE Water Quality Control Division and permission from the local government to discharge to the storm drainage system. The Final EIS should require that the Ski Area obtain all applicable state and local stormwater permits.**

The DEIS notes that EMR would be required to obtain all necessary local, state, and federal permits prior to construction. PDC have been incorporated into the FEIS (p. 2-22) regarding the specific permits referenced by the commenter: “EMR will be required to obtain all applicable state and local stormwater permits, including, but not limited to, a general construction permit and construction dewatering permit if necessary.”

## **10.0 SOILS**

### **10.1 General**

**10.1.1 To reduce impacts, “frequent maintenance and costly erosion control measures would be required”. Ibid. Revegetation of ski runs will take 3-5 years, and can take 10 years, especially where grading occurred. Id. at 3-301, 3-316. With areas of saturated soils on the north-facing slopes, there is moderate risk of mass movement. Id. at 3-300. There is a prolonged risk of erosion if revegetation of disturbed areas takes three years, let alone 10 years. With slopes up to 55 percent (id. at 3-318) and application of snowmaking proposed for all 55 acres of new ski trails at the reduced (but still high) rate of 1.25 acre-feet per acre (id. at 3-304), existing problems and risks, including soil erosion, sedimentation of waterways, and possible mass slope movement, would be exacerbated under the proposed action. Snow compacted from skiing will melt later, resulting in a prolonged snowmelt period compared to the current condition. This would increase the time of when soils are saturated, thus prolonging the time when soil impacts and slope instability could occur.**

Impacts to soil stability are disclosed in the DEIS, Chapter 3, Section J – Watershed, Wetlands, and Soils. BMPs for sediment erosion control are included in the DEIS to be implemented and maintained until planted vegetation provides erosion control (Table 2-3).

**10.1.2 Blasting is said to be necessary for construction of the Placer Pod. DEIS at 2-17, 2-58, 2-59. However, there is no discussion of the effects of blasting on soils, slope stability, and water quality.**

Impacts to soils resulting from blasting would be the same as from grading, and topsoil handling/reclamation would also be the same. Areas of blasting were captured as grading in the analysis and impacts to soils and water quality were disclosed in Chapter 3, Section J – Watershed, Wetlands, and Soils. Impacts from grading on water quality and soil resources would be minimized through the implementation of PDCs contained in Table 2-3 of the DEIS and FEIS. As far as slope stability, blasting apart large boulders to remove from the site or blasting bedrock would likely increase the risk of rock slides.

## 11.0 MIDDLE BOULDER CREEK CORRIDOR

### 11.1 General

**11.1.1 Given the significance of this area for its scenic values, its wildlife values, and its water resource values, in addition to its function as a wilderness portal, as exemplified by the land use designations described in the Comprehensive Plan and the Goals of the EEPP, the county is especially concerned about impacts on the Middle Boulder Creek drainage as contemplated under Alternative 2. These concerns will be magnified if the Ski Area builds out per its administratively accepted Master Plan from 2011.**

The impacts to the Middle Boulder Creek corridor are disclosed throughout the DEIS in relevant resource sections.

The Placer Express chairlift and associated terrain in Alternative 2 would lead to direct and indirect impacts to numerous resources in the Middle Boulder Creek corridor. The bottom terminal of the Placer Express chairlift and trail P-6 would be located near Middle Boulder Creek. Project components near Middle Boulder Creek would potentially disrupt wildlife using the movement corridor on the south side of the creek and could lead to increased erosion and sedimentation to Middle Boulder Creek.

Additionally, the construction of the Placer Express chairlift would generate traffic in the Town of Eldora area. Construction traffic would access the bottom terminal of the chairlift via CR 130 and a construction access bridge over Middle Boulder Creek. The section of CR 130 between the Town of Eldora and the construction access bridge would be improved to accommodate construction traffic, but would still not be maintained in the winter. This could affect the recreational experience of users walking, snowshoeing, etc. on this section of road both during construction and operation. Construction traffic could disrupt users traveling on the road. Recreational users in this area would also experience some additional noise from snowmaking on the proposed Placer trails. The proposed trails would also be visible from locations on the north side of the creek which are popular for recreation. The construction access bridge across Middle Boulder Creek could tempt some recreational users, both in summer and winter, to cross the creek, but the bridge would be closed with a gate to all un-authorized use.

The impacts to this area resulting from Alternative 3 would be less than those under Alternative 2. Under Alternative 3, proposed trails in the Corona and Indian Peaks pod would impact scenic resources in this area, and could lead to increased erosion and sedimentation in Middle Boulder Creek.

**11.1.2 For many years, the county has sought to protect this area in a variety of ways - from the Comprehensive Plan designations that are intended to protect important viewsheds and natural resources to the adoption of the EEPP. The county has demonstrated the significance of these designations and policies in this area through our actions. These include the acquisition and protection of 697 acres of open space through purchase of fee and conservation easement interests, as well as careful road, parking, and trail access planning in collaboration with users, local residents, and USFS. From our perspective, the DEIS places insufficient weight on the cumulative impacts to wildlife caused by increased habitat disturbance and decreased habitat effectiveness in this area [Middle Boulder**

**Creek], and insufficient weight on the additional impacts to plant species and communities of special concern to the county, such as wetland and riparian species. Nor are impacts on scenic viewsheds from the wilderness gateway of the Fourth of July corridor and Hessie area adequately considered. These considerations were given particular weight in the implementation of the parking and shuttle system implemented in the Hessie area in 2012.**

The impacts to all resources in the Middle Boulder Creek corridor are disclosed in the DEIS, including scenery, fish and wildlife, plants, watershed, etc. See Response 8.3.14 for a discussion of impacts to wildlife in the vicinity of Middle Boulder Creek. Construction in the vicinity of Middle Boulder Creek would displace wildlife in the area, and the removal of forest cover would reduce the barrier between the wildlife and human disturbances (both visual and audible). Impacts to wetlands and riparian areas were disclosed in Chapter 3, Section I – Plants and Section J – Watershed, Wetlands, and Soils of the DEIS. PDC and BMPs have been identified to reduce adverse impacts to watershed, wetlands, and soil resources (DEIS Table 2-3). Visual impacts of the proposed projects in the Hessie and Fourth of July Road areas were also disclosed in Chapter 3, Section C – Scenery Resources of the DEIS. See Responses 12.4.1, 15.1.1, and 15.3.4.

## **12.0 RECREATION**

### **12.1 Skier Congestion**

**12.1.1 The mountain needs more intermediate runs (blue or blue/black). The intermediate skier has the highest amount of skiers. At Eldora, these skiers stay on about 5 runs: 1) Hornblower 2) Windmill 3) Powderhorn 4) Jolly jug 5) International. Hornblower to International is such a safety hazard due to the bottleneck and crossover from people coming from Indian Peaks.**

As stated in Chapter 1 – Purpose and Need of the DEIS, one of the purposes of the Proposed Action is to provide additional intermediate terrain. Alternative 2 would add approximately 84 acres of intermediate and advanced intermediate terrain and Alternative 3 would add approximately 98 acres of intermediate and advanced intermediate terrain (including glade modifications). The addition of intermediate and advanced intermediate terrain and the installation/upgrade of chairlifts would improve the recreational experience, provide more terrain variety during wind events, and address safety concerns related to chairlift operations and terrain densities during wind events.

### **12.2 Nordic Area**

**12.2.1 The proposed Jolly Jug lift would also create an unpleasant skiing experience, for both downhill and Nordic skiers. The proposal is for the downhill trails to cross Nordic trails. Both skier types will be presented with signs and warnings to slow down, which will be an annoyance, particularly for the downhill skiers. It will also pose a safety risk, as skiers moving downhill at a fast pace are faced with slower Nordic skiers crossing their path. The ski area currently prohibits uphill “skinning” access on its downhill slopes citing safety reasons. I find it strange, then, that the resort does not see this similar proposal to mix downhill and Nordic skiers together as a safety risk.**

Under Alternative 2, no project components would cross Nordic Center trails. The access route to the bottom terminal of the Jolly Jug chairlift would parallel a segment of the “Porcupine Park Loop” trail (DEIS p. 3-21). As stated in the DEIS (p. 3-28), Alternative 3 would impact the “Porcupine Park Loop” trail associated with EMR’s Nordic Center on private lands. Jolly Jug trails JJ-2, JJ-4 and Jolly Jug Glades II would intersect the “Porcupine Park Loop.” The DEIS erroneously stated that the “Porcupine Park Loop” Nordic trail would close under Alternative 3. The FEIS (Chapter 3, Section A – Recreation, Mountain Operations, and Guest Services, Alternative 3 p. 3-28) has been updated to reflect this correction. This trail would remain open to Nordic skiers, and signage would be utilized to ensure user safety. The recreational experience for Nordic users on this trail would be impacted, as the presence of alpine skiers and alpine skiing infrastructure would detract from the naturalness and solitude of the experience. The bottom terminal of the Jolly Jug chairlift would also interfere with the “Deadman’s Gulch” Nordic trail; however, this interaction can be managed by EMR through signage and guest awareness” (DEIS p. 3-28). Users of the “Deadman’s Gulch” trail would likely follow a designated corridor on the side of the ski trail and a slight detour around the bottom terminal of the Jolly Jug chairlift to avoid potential user conflicts.

**12.2.2 The proposed expansion at the other end of the ski area will negatively impact the Nordic trails that are currently in the area. Having additional ski runs and a lift closer to the Nordic trails will ruin the tranquil setting that is there currently and will most certainly scare away the wildlife that we currently enjoy in this area while nordic skiing.**

Alternative 2 would have minimal impacts on the recreational experience for users of Nordic Center trails. Only one small segment of the Porcupine Park Loop trail would parallel the access road to the bottom terminal of the Jolly Jug trail. This access route would likely be used infrequently by snowmobiles and other maintenance equipment. Under Alternative 3, the recreational experience on Nordic Center trails would be more directly impacted. The presence of ski trails and chairlift infrastructure would impact the recreational experience on the “Deadman’s Gulch” trail. Confronted with ski trails and the bottom terminal of the Jolly Jug chairlift, the experience of remoteness and solitude would be impacted. Users would see and hear alpine skiers, the chairlift, ski trails, and potentially other maintenance vehicles. Additionally, the “Porcupine Park Loop” trail would be impacted, as discussed above in Response 12.2.1. The DEIS contains an analysis of impacts to wildlife in the Jenny Creek Area (DEIS Chapter 3, Section H – Fish and Wildlife).

## **12.3 Jenny Creek Trail**

**12.3.1 EITHER CONFIGURATION OF JOLLY JUG POSES DANGER FOR USERS OF THE JENNY CREEK SKI TRAIL. Under either proposed action alternative, skiers using the Jenny Creek Trail would have to cross downhill runs. Under alternative 2, skiers would cross four runs plus a small section of the Jolly Jug Glades. The same would be true under alternative 3, except a slightly larger portion of the Glades would be crossed. See DEIS Figures 2 and 4 and id. at 3-79. Under alternative 3, the Porcupine Loop trail in EMR’s Nordic system would cross two Jolly Jug pod runs multiple times. See id. at Figure 4 and 3-**

**28. The Deadman’s Gulch Trail would also be affected. Ibid. This would create a dangerous situation. The Jenny Creek Trail gets a high amount of winter use. Backcountry skiers and snowshoers would travel directly perpendicular to downhill skiers. The likelihood of collisions would be very high, at least on days, such as weekends and holidays, when EMR has high visitation levels and the Trail also gets a high level of use. The main mitigation measure (actually a project design criteria (PDC), DEIS at 2-17, 3-21), does not make much sense and would not help. How would creation of an “uphill lane”, whatever that it, help ensure safety? Backcountry users would still have to cross four ski runs plus part of the glade. Signage would do little to slow down alpine skiers or prevent collisions. We do agree with the proposed PDC (DEIS at 2-17) under which the Forest Service would seek to obtain an easement or right-of way for the Jenny Creek Trail through private property [Footnote 9: DEIS p. 2-17 mentions a right-of-way, but id. at 3-21 says an easement would be obtained. For legal purposes, an easement may not be the same thing as a right-of-way. This must be clarified.]. However, obtaining this right-of-way is a desired condition of the Arapaho-Roosevelt Forest Plan, which was approved in 1997. This was 17 years ago, yet this easement or right-of-way is still not in place. That makes it a little hard to believe the Forest Service would ever get serious about obtaining it. But even if it did, it would not relieve the safety problem of slower backcountry skiers and snowshoers intersecting much faster moving alpine skiers and snowboarders. Though the area where the Jolly Jug Pod would intersect the Jenny Creek Trail is on private land, construction of this pod could not occur without Forest Service approval. The agency must not approve an expansion of EMR that will cause a safety problem for a well-established use, as Jolly Jug would.**

Refer to Response 12.2.1 for a discussion of conflicts with Nordic Center trails. Under both alternatives, users of the Jenny Creek Trail would encounter ski area infrastructure. The safety of both alpine and Nordic trail users would be protected through PDC. It is estimated that on a busy winter day fewer than 50 recreationalists use the Jenny Creek Trail in the vicinity of EMR. It is anticipated that this level of use can be effectively managed through PDC (Table 2-3).

Additionally, the current alignment of the Jenny Creek Trail already parallels a ski trail for approximately 0.25 mile, north from the parking lot parallel to the Tenderfoot II surface lift. Under Alternative 2, approximately 0.3 mile of Jenny Creek Trail would be in the vicinity of Jolly Jug ski trails and chairlift. Approximately 800 feet would parallel the access route to the bottom terminal of the Jolly Jug chairlift. Under Alternative 3, approximately 0.4 mile would be in the vicinity of Jolly Jug ski trails and chairlift.

The recreational experience of users of the Jenny Creek Trail would be impacted by both action alternatives (DEIS, pp. 3-21 and 3-28). The presence of ski area infrastructure would detract from the experience of remoteness and solitude. Under both alternatives, approximately 1.2 miles of the trail would be in the vicinity of EMR ski area infrastructure, as opposed to approximately 0.7 mile under the existing conditions. Thus, the recreational experience of the Jenny Creek Trail would be influenced for an additional 0.5 mile by EMR ski area infrastructure.

The Jenny Creek trailhead and trail access would not change as a result of any alternatives analyzed. A PDC is included in both action alternatives for ARP to pursue an easement for the current location of

Jenny Creek Trail on private land owned by EMR (DEIS p. 2-17). This easement would protect public access to NFS lands on the Jenny Creek Trail, including the Arestua Hut, into the future.

## 12.4 Hessie and Fourth of July Area

**12.4.1 The Final EIS should include more baseline information on existing use in the Middle Boulder Creek valley - information that is paramount to analyzing impacts of a Ski Area expansion. Such basic data should include at a minimum: i. How many vehicles and dispersed recreationists use the Fourth of July Road? ii. How many hikers use the trails out of Hessie? iii. How many use the trails at the Fourth of July trailhead? iv. What type of experience are these recreationists seeking? How might an expanded Ski Area impact the recreational experiences of remoteness, primitiveness, and solitude?**

During an average summer weekend day, approximately 300 to 500 people visit the Hessie and Fourth of July area. This includes people that use the existing parking (approximately 140 spaces) in the area. In addition, Hessie Trailhead shuttle bus provides approximately 7,000 people to the area annually or approximately 200 people per weekend day.<sup>8</sup> Therefore, on an average summer weekend day, approximately 325 vehicle trips, including shuttle buses, occur through the Town of Eldora and CR 130, and approximately 500 to 700 people are in the Hessie and Fourth of July area. Expanding this daily estimate to total people during the months when the road is snow free and the majority of recreation occurs, over 100,000 people are parking and recreating in the Hessie and Fourth of July area. At this time, 60 to 100 vehicles are parking along CR 130 near the proposed project area. Also worth noting, there are two portable toilets at the turnaround location along CR 130.

This level of visitation to the area has led to decreased naturalness over time and impacts to the surrounding environment, including wildlife habitat and water quality.

As discussed in the DEIS, projects contained in Alternative 2 “would impact scenic resources in this area, and could take away from the experience of remoteness and primitiveness” (DEIS p. 3-22). The primary impact to the dispersed recreation experience would result from changes to scenery resources. The visibility of proposed infrastructure would detract from the naturalness of the visual setting, thereby impacting the recreational experience. However, as discussed in Chapter 3, Section C – Scenery Resources, the landscape at EMR is already affected by ski area infrastructure, and thus changes associated with the action alternatives would be incremental. Additional noise could also detract from the experience of remoteness and primitiveness in this area. It is important to note that the boundary of the Indian Peaks Wilderness, where the characteristics of remoteness, primitiveness, and solitude are expressly protected through Forest Service management, is approximately 1.3 miles from the proposed projects at its closest point (the westernmost part of proposed trail P-6). The ROS classification in the vicinity of Hessie Road and Fourth of July Road is Roaded Natural, and the area west of the Hessie townsite is Semi-Primitive Non-Motorized. In conjunction with this impact analysis, it is important to

<sup>8</sup> Perault, 2014

note that on the ROS spectrum, an area with an ROS classification of Roaded Natural would have a high level of access, management, facilities and social encounters and a lesser degree of remoteness compared to ROS classifications of Primitive, Semi-Primitive Non-Motorized and Semi-Primitive Motorized. Both action alternatives would be consistent with these ROS designations.

**12.4.2 We have additional concerns that winter maintenance of this segment of road would negatively impact Nordic skiers and snowshoers that currently use this segment of road for winter recreation and impact remediation needs to be included inside the DEIS. Where would the winter backcountry trailhead and parking, currently in the Town of Eldora, be located?**

Winter maintenance of CR 130 is not proposed under either action alternative.

## **12.5 General**

**12.5.1 Downhill skiers will not stay inbounds or stop at the bottom of the runs. Just west of the current runs, towards Lost Lake, there is considerable avalanche danger. Bringing more skiers and snowboarders near this hazard will increase risk for them as well as for anyone using the area below them.**

Neither action alternative proposes new terrain development west of the current ski area SUP boundary. Moose Glades is currently the westernmost terrain at EMR, and while Alternative 3 would make improvements within this area, there would be no development further to the west. The SUP boundary is currently marked with a fence and signs warning skiers that they have reached the edge of the ski area. It is not expected that either action alternative would increase the instances of skiers exiting the SUP area to the west, past Moose Glades on Figures 1 through 5 of the DEIS.

**12.5.2 Without the cooperation of Eldora Mountain Resort, whether it be voluntary and spontaneous or “incentivized” by its proposed ski area expansion, passive recreationalists will continue to be Balkanized by the resort and by the ongoing inability or unwillingness of the public land management agencies to acquire and/or negotiate public access to some of our favorite public lands. Only a strategic new partnership between EMR, the Forest Service, Boulder County Parks & Open Space, and stakeholder groups such as BATCO will break the impasse. Specifically, we request that any approval of expansion of the ski area be contingent on the addition of several year-round passive recreation amenities.**

The Forest Service always encourages collaboration and partnerships to work on common goals. However, to include these measures in this process is beyond the scope of what should be considered.

**12.5.3 The 2011 Master Plan states that, summer “special events include corporate events, and races - including bike races, running races, and triathlons. At various summer events, as appropriate, the Nordic trail system is opened to mountain biking.” Indirect and cumulative impacts from these activities are not adequately addressed in the DEIS but should be in the Final EIS.**

The Cumulative Effects section of the recreation analysis in the FEIS (p. 3-30) has been updated to include a discussion of these summer events.

Small summer events including bike races, running races, and triathlons are occasionally held at EMR. Summer events are limited in size, type, and time of year by the conditions of EMR's SUP with Boulder County. Specifically, EMR is limited to 19,000 summer visitors with no more than 1,500 visitors per event. The permit also includes restrictions for noise, use of specific trails, leashed pets, visitor numbers in certain zones at EMR, and wetland protection measures.

These summer events provide structured activities for guests at EMR. These activities are included as part of the existing condition at EMR, and the 2011 Master Plan does not include any additional future summer activities. The existing activities have been incorporated into the environmental baseline from a resource standpoint, namely Fish and Wildlife. Due to the nature of these events and activities, the environmental impacts are negligible.

**12.5.4 Impacts of Increased Summer Recreation. a. The Final EIS should address the impacts of increased summer recreation associated with each Alternative, beyond and within the Ski Area boundaries, extending to other popular areas nearby such as West Magnolia, Hessie, and Jenny Creek. What activities currently occur - such as mountain biking, conferences, and races - and what future activities are being considered? We have heard from a number of trail advocates about their desire for improved connectivity, access, and trailhead parking that could use lands that the Ski Area operates on (both private and public). The county has also received comments submitted by both the Boulder Area Trails Coalition and the Boulder County Horse Association, as well as individual community members, concerning challenges to accessing both summer and winter recreational uses on public lands and the potential for utilizing the Ski Area as a parking area or trailhead that would relieve pressure on the more sensitive and constrained Fourth of July Road corridor and Hessie area in the Middle Boulder Creek Area (see below). We see a lot of value in these comments. The county will continue to collaborate with USFS on efforts to support recreational access to the area that is also sensitive to the natural resources values that draw this use. We urge the USFS to identify opportunities to use this EIS process as a means for resolving longstanding recreational access issues and conflicts.**

Refer to Response 12.5.3 for a discussion of existing summer activities at EMR. The Forest Service is not aware of any plans for increased summer recreation in the area. None of the alternatives analyzed in the DEIS would result in additional summer recreation at EMR. Some cumulative effects projects analyzed in the DEIS (p. 3-29) could lead to temporary increases in dispersed recreation users in the Hessie/Fourth of July Road area, and general increasing interest in outdoor recreation could lead to additional summer recreation in the study area. The FEIS (p. 3-28) recreation analysis has been updated to acknowledge that impacts to the Jenny Creek Trail could drive users to other trails in the area which could increase the usage of those trails, thereby diminishing the experience for other users of the trail.

## 13.0 SOCIAL AND ECONOMIC RESOURCES

### 13.1 General

**13.1.1 Eldora is a vital component to the community of Nederland. Expanding their present services and mountain experience will enhance our community with more skier traffic, additional local employment and increased revenue to local businesses. In this competitive world, I think enhancing their potential would greatly benefit a variety of people, and businesses in addition to keeping this area competitive.**

The DEIS, Chapter 3, Section E – Social and Economic Resources, discloses the impact of proposed projects on a variety of economic indicators. Both action alternatives would have substantial positive impacts outside the resort. Cumulatively (including construction and on-going operations), Alternative 2 would generate 795 FTEs and approximately \$83 million in dollar flows over the ten-year projection period. In addition, Alternative 2 would generate a cumulative total of \$3.94 million in state and local taxes (DEIS p. 3-110). Cumulatively (including construction and on-going operations), Alternative 3 would generate 395+ FTEs and approximately \$63 million in dollar flows over the ten-year projection period. In addition, Alternative 3 would generate a cumulative total of \$2.57 million in state and local taxes (DEIS p. 3-114).

**13.1.2 Any additional employment would be seasonal minimum wage jobs with no benefits which would put further pressure on local government resources and charitable agencies to fill the gap. It would also be better for local business if additional retail facilities were not built on the mountain which would allow local merchants to benefit from any increased trade resulting from any expansion or improvements of the lifts. Now the Ski area is a net liability for the local business community because skiers commute through Nederland to the EMR and a economic activity is contained there.**

Additional employment due to proposed projects would include temporary construction jobs as well as on-going operations jobs, both at EMR and in the surrounding communities (DEIS p. 3-108). Additionally, increased visitation to EMR would result in economic gains both inside and outside of the resort. See Response 13.1.1.

## 14.0 TRAFFIC/PARKING

### 14.1 I-70 Traffic

**14.1.1 Other impacts to consider if Eldora can't remain competitive and survive. Added skier traffic to I-70 corridor results in impacts on air quality and puts additional strain on I-70.**

The DEIS did not analyze potential changes in I-70 traffic. An issue was raised during scoping that, “the proposed projects at EMR could result in skiers choosing to visit EMR instead of Summit and/or Eagle County resorts, which could reduce traffic and affect air quality along the I-70 corridor” (DEIS p. 1-17). This issue was dismissed due to its speculative nature. “An estimate of effects to traffic and air quality would require a prediction of the number of skiers persuaded to ski EMR instead of another resort, an

assumption of the number of passengers in each vehicle, and a generalization about vehicular emissions. Therefore the analysis of this issue would be highly speculative and is thus dismissed” (DEIS p. 1-17).

## 14.2 Nederland Traffic

**14.2.1 The impact of EMR traffic within the Town of Nederland is inadequately treated. Reliance upon CDOT criteria for highway carrying capacity ignores the very real gridlock created during afternoon peak hour EMR traffic within the town. Motorists needing to cross or enter the east-bound lane of traffic can wait for minutes for an opportunity to do so. Some means of effectively mitigating the negative impacts of resort traffic within the Town should be required in the PDC.**

The DEIS, Chapter 3, Section E – Traffic, Parking, and Air Quality discloses that the action alternatives would increase typical winter day traffic on SH 119 north of Eldora Road by approximately 11 percent in 2035, relative to the No Action Alternative (DEIS p. 3-53). A PDC has been incorporated into the FEIS (Table 2-3 p. 2-17) to provide traffic control at the CR 130/SH 119 intersection at times of high traffic. See Response 14.6.9.

The PDC states, “Position a public safety officer at the intersection of CR 130/SH 119 to control traffic flow during peak hours on busy ski days.”

## 14.3 Construction Traffic

**14.3.1 Ski area expansion between the Town of Eldora and Hessie could have noticeable impacts including construction traffic, logging trucks making an estimated 106 round trips, blasting with dynamite and helicopters dropping in ski lift materials. Other communities in Colorado have been severely disrupted by impacts created by the rapid development of ski areas. This can be avoided by taking the community into consideration as part of the decision making process and not expanding the ski area beyond the existing boundary adopting the no action alternative.**

See Response 18.1.1. As disclosed in the DEIS, 106 truck trips associated with the Placer Express and associated terrain are expected to travel through the Town of Eldora on Eldorado Avenue (DEIS p. 3-49). The DEIS, Chapter 3, Section F – Noise, further discusses the impact of these trips on the Town of Eldora. “Noise from these vehicles is not expected to reach or exceed the 88 dBA threshold established by the Boulder County Noise Ordinance for vehicles with a manufacturer’s gross vehicle rating of 10,000 lbs. or more. Tree removal trips for the other project components are expected to be accessed through the base area of EMR and would not impact the Town of Eldora. EMR would conduct limited rock blasting through the use of dynamite within the Placer chairlift and terrain pod. The acoustic levels of airblast, or air pressure, is measured in dB. The maximum airblast limits range from 129 dB to 134 dB. Blasting would occur over an approximate 15-minute period over several days during construction. To reduce noise impacts, blasting could occur in the springtime when snow is still present,” (DEIS p. 3-127).

**14.3.2 The Final EIS should provide a construction phasing plan to understand how construction equipment will access the Placer chairlift before the bridge is built.**

The bridge across Middle Boulder Creek would be used for the construction of the bottom terminal of the Placer chairlift, and thus construction of the chairlift would not begin before the bridge is built. The Placer chairlift and trails are anticipated to be built in the first year of construction. A schedule of tree removal truck trips is presented in the DEIS (p. 3-49).

**14.4 Ski Area Parking Lots**

**14.4.1 Additional parking is badly needed at Eldora. Skiers and visitors are turned around not allowed to go to Eldora many times due to parking capacity. Employees would have safe and easy access to the resort and would not need to be shuttled from the Nederland High School.**

The additional 560 parking spaces proposed under Alternatives 2 and 3 would be adequate to meet demand for most days of the ski season (DEIS p. 3-54). Under both action alternatives, the parking supply would increase from 2,000 spaces to 2,560 spaces. Under Alternative 2, approximately 2,340 parking spaces would be required on the 10th busiest day. Under Alternative 3, there would be a need for approximately 2,070 parking spaces. Additionally, a PDC has been incorporated into the FEIS (p. 2-17) to encourage ride-sharing that could reduce the demand for parking at EMR. See Response 14.6.10 and 1095. The PDC states, “The ARP encourages EMR to promote/implement a ride-sharing program to reduce vehicular traffic on access roads and the demand for parking.”

**14.5 Hessie Trailhead Parking**

**14.5.1 We are concerned that installation of a bridge in this area will draw unauthorized pedestrian access from CR130 to the Ski Area resulting in undesirable additional summer use and associated impacts in this area. Not included within the DEIS, but shown in the 2011 Master Plan is a newly constructed road from the proposed bridge to another lift at Moose Glades. This additional infrastructure will further induce pedestrian access. From an unnecessary impacts perspective, this new access point will increase traffic through the Town of Eldora and increase parking pressures on both Hessie Road and townsite roads. These impacts could occur at any time during the year, not just when the Ski Area is operational.**

Refer to Response 8.3.20 for a discussion of recreation access across the proposed bridge.

Construction of Moose Glades could lead to increased construction traffic across the bridge if/when that project is approved and implemented. However, as discussed above, the bridge would be closed to public use and would be restricted to ski area personnel and administrative use only. The Forest Service does not anticipate this bridge to be an attractant for the public to access the south side of Middle Boulder Creek. Currently, the public drives across (directly through the stream) Middle Boulder Creek approximately 0.5 mile upstream from the bridge location. Therefore, the Forest Service does not anticipate the proposed bridge to generate additional vehicular traffic.

Potential future development of Moose Glades was included in the cumulative effects analysis of the DEIS, but the FEIS (Chapter 3, Section B – Traffic, Parking, and Air Quality, Cumulative Effects p. 3-60) has been updated to provide additional discussion of the potential road associated with the Moose Glade Express, contained in the 2011 Master Plan. This road would provide access from the construction access bridge near the bottom terminal of the Placer Express to the bottom terminal of the Moose Glade Express. The road would follow the alignment of a proposed ski trail from the bridge location to the bottom terminal of the Moose Glade Express, in an alignment generally parallel to Middle Boulder Creek. This road spur would be approximately 2,000 feet long.

The PDC limiting use of the bridge has been refined in the FEIS (p. 2-17) to provide additional strategies for restriction if use of the bridge proves problematic. A gate would be included in the bridge design and use would be monitored.

**14.5.2 Construction of the bridge would remove eight parking spaces used by dispersed summer recreationists heading for Hessie and points west and northwest. DEIS at 3-54. It would likely take up parking spaces for winter users also. The loss of parking places is dismissed as a small loss and by the belief that it “would not prevent users from parking nearby”. Ibid. The latter is simply not true! On weekends, all the legal parking spaces are filled by about 10:30 AM. There is already way too little parking available to meet the demand, at least on weekends and holidays.<sup>11</sup> Thus the loss of eight spaces would increase the parking situation and diminish or eliminate access for some recreationists because they would not be able to find parking spaces within a reasonable distance of the summer or winter trailheads.**

The loss of parking at the Hessie/Fourth of July Road trailhead resulting from Alternative 2 was disclosed in the DEIS (p. 3-54). Additionally, in the summer months the access road to the bridge would only need to be available for access to ski area when the ski area is conducting maintenance on the lifts. The proposed bridge access would not take up winter parking in the area since the road is only plowed to the west side of the Town of Eldora and vehicular access does not occur to this location in the winter season.

A PDC has been incorporated into the FEIS (Table 2-3 p. 2-17) stating that, “The Forest Service and EMR will install signs at the proposed road spur area alerting the public that it is permissible to block the access road when there are no operations occurring in the vicinity of the Placer Express.”

## **14.6 General**

**14.6.1 Traffic problems in Boulder Canyon and on the shelf and in Eldora itself. The EMR currently contributes significantly to the traffic in Boulder Canyon. We regularly can drive down the canyon in a stream of 20-30 cars in an afternoon in the winter, almost all from the ski area. Traffic can be backed up going East on Broadway in Boulder for 3 and 4 light changes. A surprising number of these cars are single occupancy. With an increase in skier capacity of 1500 people, the car traffic will increase significantly. The additional traffic creating additional infrastructure costs, such as for snow removal, all come at additional costs to taxpayers who are subsidizing a private corporation. How do Boulder County tax**

**payers fare in this? Do the additional tax dollars from increasing skiing capacity cover the additional expenses of building and maintaining the Shelf Road and Boulder Canyon?**

The analysis of road maintenance costs in Boulder Canyon is beyond the scope of this analysis. The additional traffic generated by the proposed projects at EMR would not substantially contribute to overall traffic levels on this stretch of road. Road maintenance is generally driven by the amount of truck traffic on a roadway. Sales tax revenue is anticipated to increase with implementation of either action alternative. A portion of that tax revenue would go to Boulder County and could theoretically be used for road maintenance. However, this does not mean the money would go directly back to road maintenance for the Canyon or Shelf Road.

As discussed in the DEIS, Alternative 2 would generate a cumulative total of approximately \$3.94 million in state and local taxes, and \$2.57 million under Alternative 3. These tax dollars would not necessarily be spent on road improvements in Boulder Canyon, but they could contribute to these maintenance activities.

**14.6.2 The segment of road between end of pavement and bridge is very rough, steep and narrow. Major earthwork and physical improvements to the road would be required before fully loaded logging trucks would be able to use this road during the construction phase, or to be reasonably used in the winter for emergency access. Improvements at some locations would likely require rock blasting. Further, in several locations the current edge of the road lies immediately on the USFS property boundary. Any widening of the road onto USFS would trigger a separate NEPA process and additional EIS.**

It is not anticipated that this segment of road would need to be widened or otherwise improved.

**14.6.3 Neither Boulder County nor any other agency provides winter maintenance of the segment of CR130 between end of pavement and the proposed bridge, a segment approximately 3,000 feet (0.6 miles) long. Within the DEIS there needs to be discussion of the winter maintenance schedule and the required equipment the Ski Area would need to either purchase or contract to adequately perform this maintenance.**

Winter maintenance of this segment of road is not proposed.

**14.6.4 If the above segment of road [County Road 130 between the end of pavement and bridge] were to be upgraded, it is unclear what agency would be responsible for continued maintenance and future capital improvement upgrades.**

County Road 130 would not be upgraded.

**14.6.5 Construction of a Bridge over Middle Boulder Creek. The DEIS notes that a bridge crossing Middle Boulder Creek and two road segments would be constructed to connect CR 130 to the proposed Placer Express terminal site. The bridge would facilitate the transportation of construction materials to the site of the bottom terminal of the Placer Express chairlift as well as provide on-going maintenance access. Between 552 and 628 total trips for tree removal are estimated for Alternatives 2 and 3; however, it is unclear what additional maintenance activities would need to occur and the frequency at which such**

**activities might occur. The DEIS did not adequately address the type and extent of the bridge use and the full impacts of such use.**

As disclosed in the DEIS, approximately 106 truck trips are expected to start at the proposed bridge site near the bottom of the proposed Placer chairlift and travel through the Town of Eldora on Eldorado Avenue (DEIS p. 3-49). Besides construction access, the bridge would be used for periodic maintenance access and emergency evacuations. During the summer, the bridge would be used for lift and trail maintenance for less than two months total between approximately June and November. Use would likely be concentrated to week-long sessions approximately four to five times per summer. During these summer sessions there could be ingress and egress for one or two vehicles a couple of times each day. During the winter, during emergencies injured skiers could be skied across the bridge to the Town of Eldora where they could meet Boulder County EMS personnel.

**14.6.6 There should be discussion and/or commitments to maximum daily and weekly use of (trips across) the bridge across all seasons.**

Refer to Response 14.6.5 for a discussion of bridge use. A PDC has been incorporated into the FEIS (Table 2-3 p. 2-17) stating that, “EMR will employ signage at the intersection of the proposed road spur and CR 130 to publicize the timing and extent of bridge use, including construction and maintenance.”

**14.6.7 The proposed bridge to CR130 would require an access permit from Boulder County.**

EMR would be required to obtain all necessary permits prior to construction.

**14.6.8 There appears to be discrepancy within the DEIS on the expected number of passengers in arriving vehicles. On page 3-42, 3/20/12 day counts show a 2.47 Average Vehicle Occupancy AVO but page 3-40 shows a skier/ vehicle index of 0.625.**

AVO is derived from observing vehicles (passenger cars, SUVs, vans) as they enter the parking lots, counting only those skiers arriving by a parked passenger car. Typical AVO range is between 2.5 and 2.7 occupants per vehicles. The AVO presented on page 3-42 of the DEIS is correct. Table 3B-1 includes skiers arriving by all modes (bus, drop-off as well as parked cars) and is a different measure than AVO. Table 3B-1 of the FEIS (p. 3-40) has been updated to clarify the data.

**14.6.9 Boulder County staff is not aware of any precedence on CDOT roads of the traffic mitigation technique indicated on page 3-63: “Stationing a public safety officer to control traffic flow during the busier skier days would be a no-impact means to reduced seasonal left turn delay.” It is unlikely that Boulder County would permit this traffic management approach at this intersection.**

Motorists entering SH 119 at the Stop-controlled Eldora Road approach to SH 119 currently can experience noticeable delays during the afternoon peak departure. The duration and frequency of these delays could increase with the action alternatives. Stationing an officer to manually alternate right of way for all approaches during a 1.5- to 2-hour afternoon period during high visitation days is one low-impact alternative to balancing delay at this intersection. Mega-churches and event operators often contract for

off-duty police manual traffic control to manage short-duration high side street traffic demands on state highways. Manual traffic control is also utilized at Copper Mountain (SH 91 parking lots) at side street intersections. Additionally, the complex of three churches at the Colorado Blvd (SH 2)/Hampden Ave (SH 285) intersection in Denver is another example of officer override of a multi-phase traffic signal during Sunday morning services. Prior to roundabout installation, officers manually controlled the Vail Road/South Frontage Road (CDOT jurisdiction) intersection in Vail during high skier-day afternoons.

**14.6.10 To mitigate the increased traffic, season and multiday Ski Area ski passes could be printed on RTD Smart Cards to provide unlimited ski and transit access on the same card. Discussions between Boulder County and RTD indicate that Smart Cards could be programmed to be valid only on the N route and only when Ski Area is operational.**

The following PDC is included in Table 2-3 of the DEIS (p. 2-38): “Develop a transportation program with Boulder County to reduce vehicle emissions.” EMR is currently working with RTD to improve bus service to EMR. Additionally, EMR subsidizes employee use of RTD and provides shuttle service from Nederland for day visitors during high use periods. The Forest Service has discussed the concept of a public transportation incentive program with EMR and they are committed to providing an incentive program. Development this program would be the result of further conversations between Boulder County, ARP, and EMR.

This PDC was also contained in the DEIS: “Continue and increase (possibly through the use of guest incentives) the amount of mass transportation and ride sharing to manage traffic and parking capacities,” (DEIS p. 2-17). This PDC was refined in the FEIS (p. 2-17) to include examples of guest incentive programs such as VIP parking at the front for vehicles with three or more passengers, a ten dollar food voucher for vehicles with three or more passengers, a discount coupons on bus receipts, paid parking at the base parking lot to encourage carpooling and transit use, employer-paid Eco Pass programs for staff, transit pass programs for day skiers, promotion of RTD services in EMR advertising materials, staff shuttle from satellite parking lots, etc.

**14.6.11 There is no discussion of transportation demand management programs to reduce daily vehicle traffic for both staff and visitors. This would include industry-tested programs such as: i. Paid parking at the base parking lot to encourage carpooling and transit use. ii. Employer paid Eco Pass programs for staff. iii. Transit pass programs for day skiers. iv. Promotion of RTD services in all Ski Area general advertising materials. v. Staff shuttle from satellite parking lots (e.g. the Ski Area-owned property at intersection of CR130 & SH119).**

See Response 14.6.10.

**14.6.12 The parking demand estimates included in the DEIS assume that new users will exhibit the same mode split as today. Transportation demand management programs would change these estimates and the Final EIS should show different parking scenarios based upon different mode assumptions.**

The PDC discussed in Response 14.6.10 could reduce parking demand in the future at EMR. However, the DEIS and FEIS analyze future parking demand based on current trends.

**14.6.13 Given that most of the additional proposed parking will be unused for the majority of the year (close to 350 days each year) the Final EIS should explore an alternative that uses the 180 spaces at the Nederland High School. For the busiest ski days of the year, the Ski Area could run visitor shuttles from this parking facility.**

The 180 parking spaces at Nederland High School would be insufficient to meet the demand for parking at EMR on the 10th busiest day under Alternative 2. EMR currently has 2,000 parking spaces. As discussed in the DEIS, under Alternative 2, there would be a need for 2,340 parking spaces on the 10th busiest day. Under Alternative 3, there would be a need for 2,070 parking spaces on the 10th busiest day. Thus, the parking at Nederland High School could potentially meet the additional parking needs under Alternative 3, but would not be sufficient for Alternative 2. The following PDC has been incorporated into the FEIS (p. 2-17): “The Forest Service encourages EMR to use the parking lots at Nederland High School for guests and employees to the greatest extent possible.” Because the proposed parking lot expansion is located on private land, the Forest Service does not have direct jurisdiction over this project.

**14.6.14 Table 3B-5 states that vehicle-per-hour forecasts are within 1,700 vehicles-per-hour, a benchmark of lane capacity often used in traffic operation analysis. The report suggests that since additional generated traffic is within this benchmark that the Ski Area expansion is not expected to trigger any traffic congestion impacts. The 1,700 benchmark, however, is intended to be used on road segments with no turning movements or intersections. This is clearly not applicable for this location and thus all volume to capacity ratios (V/C) throughout the report are inaccurate.**

The 1,700 vph design capacity of two-lane SH 119 north and south of the Eldora Road intersection is taken directly from CDOT’s website Straight Line Diagram for this segment of SH119. Per the standard Highway Capacity Manual, two-lane capacity for uninterrupted flow rural highway segments such as this considers lane and shoulder widths, operating speed, road gradient, percent passing opportunities, percent trucks and side access frequency. Hence, Table 3B-5 properly depicts V/C ratios per CDOT published sources.

**14.6.15 Boulder County Transportation Department traffic counts are referenced in the study but have little relevance since these are conducted in the summer and are not representative of winter conditions. In addition, the report divides total annual traffic by 365 days but this is not representative of actual volumes during ski season.**

Boulder County summer traffic counts, while not used in the winter day total volume projections (actual Spring Break data was used), are useful for estimating background (non-project) traffic within the overall traffic mix.

**14.6.16 The Final EIS should include more specifics on the impact of the increased traffic impact on Eldora Ski Road, as well as possible mitigation. There was no mention of the additional required maintenance and physical improvements to the roadway infrastructure triggered**

**by construction traffic and increases in daily use traffic. Commitments to such road improvements were made in the 1978 Road Agreement as well as the 1998 Special Use Agreement and similar commitments appear appropriate in this context.**

Based on the additional visitation and projected construction traffic, additional maintenance and physical improvements to the roadway infrastructure are not anticipated. Should Boulder County determine roadway improvements are necessary, the ski area and Boulder County would coordinate appropriate upgrades. Based on an understanding of the existing roadway, the Forest Service is not in a discretionary position to dictate upgrades to a County roadway.

**14.6.17 Traffic will be increased by 31% in both the AM and PM peak hours with additional congestion and safety concerns. There are particular congestion concerns in the afternoon peak hour for left turns off of CR130 onto SH119. This is a single lane approach meaning any queued left-turning traffic blocks right and through traffic.**

Refer to Response 14.2.1. A PDC has been incorporated into the FEIS (p. 2-17) to provide traffic control at the CR 130/SH 119 intersection at times of high traffic. See Response 14.6.9.

**14.6.18 There are particular safety concerns on CR140. AASHTO Roadside Design Guidelines require more stringent physical safety conditions with increased traffic volumes. The traffic increases identified in the DEIS may trigger expanded road side clear zones and/or installation of guard rail or cement jersey barriers. Segments of CR140 along Peterson Lake are currently very hazardous during high wind conditions which are often present in this area. Heavy snowfall can exacerbate these hazards. Increased public exposure to such hazards as a result of more users will likely require mitigation and should be explored in the Final EIS.**

See Response 14.6.16.

**14.6.19 The Final EIS will need to provide an LOS analysis of all intersections. This will need to include a direction split of traffic including CR140/CR130 and N/S SH119.**

The DEIS includes analysis of peak hour turning movement counts at the SH 119/Eldora Road intersection (DEIS Chart 3B-1) as well as traffic count information for accessing roadways. This information is adequate to understand how the alternatives would affect traffic in the area.

**14.6.20 It is possible that an amended CDOT access permit will be needed for SH119, although this is not immediately clear. In general, CDOT requires an amended access permit when a single development or redevelopment increases the existing traffic conditions by more than a 20%. If an amended permit were necessary it would be the responsibility of Ski Area, not Boulder County.**

Future action will likely require a new Access Permit at the SH 119 intersection. At that time CDOT may stipulate conditions for speed change lane improvements at the intersection per Section 3 of the State Highway Access Code. EMR would be the Applicant for the Permit with the County as Property Owner of Eldora Road, either signing as the Property Owner or co-Applicant. In either case the County would

most likely stipulate that EMR would be responsible for off-site capital costs associated with conditions of the new permit. Access permits once granted have a one-year life unless a one-year extension is requested and granted prior to expiration. A maximum of two extensions can be granted if CDOT so chooses. For this reason Access Permit Applications are not normally submitted until there is a clear path to begin construction as dictated by project approval proceedings.

## **15.0 SCENERY**

### **15.1 Visibility of Trails for Recreationists**

**15.1.1 The impact analysis to scenic resources is inadequate. Four viewpoints along County Road 130 have been arbitrarily selected for viewshed analysis, one of which includes a large screening spruce tree in the immediate foreground. More fundamentally, the analysis cannot conclude that by expanding Ski Area's Special Use Area, all scenic impacts subsequently are insignificant based on the now-"low" Scenic Integrity Objectives. If there was no ski area at all, would there be no scenic impacts from a new ski area because the "new" SIO's allow altered landscapes? It is the change from the current, existing conditions that is being analyzed, not the future conditions. How many Middle Boulder Creek recreationists think scenery is unimportant or that an altered landscape is acceptable? In addition, the analysis of ROS impacts resulting from the Forest Plan Amendment claims that only the 42 acres being changed to Management Area 8.22 are being affected. New lifts and ski runs will be readily visible from vast areas of the National Forest, where, presumably, recreationists also value the scenery and "the solitude of the current recreational experience."**

The criteria for the selection of the viewpoints was included in the DEIS (p. 3-64) and include the context of viewers, the duration of view, the degree, of discernable detail, seasonal variations, and the number of viewers. The Forest Service does not consider the selection of viewpoints through these criteria as "arbitrary." The DEIS further discloses which project components would be visible from the surrounding areas, including the four viewpoints. The DEIS does not state that these scenic impacts would be "insignificant," but rather describes the visibility of project components. The impacts are described as "incremental" because existing ski area infrastructure is currently visible from the viewpoints (DEIS pp. 3-78 and 3-79). The DEIS discloses the visibility of proposed projects and the proposed conditions are evaluated in the context of the SIO of Low. The SIO has no bearing on the analysis of the visual impacts themselves, it is simply a metric through which to analyze consistency with Forest Service standards and guidelines.

Additionally, as discussed in Chapter 3, Section A – Recreation, Mountain Operations, and Guest Services, the dispersed recreation experience in the Hessie/Fourth of July Road area would be impacted by these changes to the visual environment. The visibility of additional infrastructure would detract from the experience of remoteness and primitiveness. However, as discussed in the Chapter 3, Section C – Scenery Resources, EMR's SUP area is already impacted by existing ski area infrastructure, and the implementation of proposed projects would lead to incremental changes. The Forest Service understands

the value of scenic integrity to the recreation resource and to dispersed recreationists, which is why the Forest Plan includes SIO designations for multiple uses. The analysis didn't conclude that scenery is unimportant or that an altered landscape is acceptable. The analysis documented the effects of the project to scenic values within the area.

The ROS classifications provide guidance for what is appropriate on NFS lands. The ROS classification in the vicinity of Hessie Road and Fourth of July Road is Roaded Natural, and the area west of the Hessie townsite is Semi-Primitive Non-Motorized. Seeing the proposed projects from these areas would not affect the ROS classifications of these locations. The analysis discloses that the project would be visible from various viewpoints, which is why the Forest Service selected several of the critical viewpoints north of the project area. See Response 12.4.1 for additional discussion of impacts to dispersed recreationists.

**15.1.2 There appears to be an assumption that relative to whatever scenic impacts exist from the Proposed Action along CR 130, the duration of the view experienced by recreationalists is expected to be relatively short (DEIS at page 3-79). We don't believe this is an accurate representation of how recreationalists use CR 130 during winter. Recreationalists park at the end of the paved road at the west end of Eldora during the winter. The primary forms of travel are snowshoeing, walking (in the snow - it has become very popular, much to the chagrin of cross-country skiers) and cross-country skiing. On a weekend or holiday there can be over 75 cars parked at the west end of Eldora. Many recreationalists don't go very far, but let's say that Lost Lake is an average destination. It is 2.6 miles from the west end of Eldora. From the first major bend in the road (where you can start seeing the ski lifts and runs) to the Hessie fork is a half mile; 20% of a round trip to and from Lost Lake would be directly below the Placer lift and runs. From the first major bend to the west end of Hessie is 0.8 miles; 31% of the round trip to and from Lost Lake would have the sites of the new ski runs as part of the foreground. And if the next phase of ski area expansion on the backside is built (Moose Glade Express chairlift and terrain), as proposed in the 2011 Master Development Plan, the visual presence of EMR facilities in the foreground would increase.**

Critical Viewpoint #3 is located on CR 130, at the turn in the road where the ski area becomes visible for viewers travelling west. Chapter 3, Section C – Scenery Resources discloses the impacts to visual resources at this location. As discussed in the DEIS, infrastructure and ski trails associated with the Placer Express and associated terrain, Corona chairlift upgrade, and tree thinning in Salto Glades would be visible under the Proposed Action (DEIS p. 3-78). See Figure 9 in the DEIS for a visual simulation of the action alternatives from this viewpoint. Additionally, analysis from the other Critical Viewpoints (located in the vicinity of Fourth of July Road, the Hessie/Fourth of July Road, and the Proposed Bridge Location) adequately illustrate and disclose the visual impact of the proposed projects.

In general, impacts in the immediate foreground (extending about 300 feet from the viewer) are anticipated to be minor and views would be of short-duration due to the vegetation in the area. Through photo documentation (located in the project file), review of aerial photography, and review of vegetation mapping, the Forest Service expects that the existing vegetation would screen the project approximately

from the proposed bridge location to the road fork location. The view of the proposed bridge is expected to be relatively short (DEIS p. 3-79). Tall trees and dense vegetation would likely limit the view of the Placer trails along the stretch of CR 130 frequented by winter recreationalists.

## **15.2 Light Pollution**

### **15.2.1 I would object to any expansion of off-hours lighting, except exterior lights that are part of buildings and that meet county Dark Skies requirements.**

As disclosed in the DEIS, lights on snowmaking guns would be visible during the snowmaking season and lights on groomers could be observed from viewpoints beyond the ski area (DEIS p. 3-75). Lighting could be visible during night-time hours from CR 130 immediately adjacent to the proposed SUP boundary near Middle Boulder Creek. Additionally, EMR currently operates night skiing on the eastern-facing trails accessed via the Challenge, Cannonball, and other lower-mountain lifts. Night skiing lighting does not extend above the lower mountain. It is anticipated that outdoor lights on the proposed guest service facilities would be turned off by approximately 9 p.m.

## **15.3 General**

### **15.3.1 We believe a lot was missed in the selection of the Critical Viewpoints. There are locations between Critical Viewpoints 1 and 3 where there are superior views through the trees along CR 130 of the hillside above Middle Boulder Creek compared to what was chosen. The “Ground View” of Critical Viewpoint 4 should have been angled up so the runs could be seen. The Hessie Townsite should have been chosen as a Critical Viewpoint. The hillside where the ski runs come down toward Middle Boulder Creek is an important part of the foreground to middleground backdrop when hiking east through the townsite (see Photo Point 7A in the MBCC Scoping Comments). Another viewshed where the Proposed Action would be visible is coming down from Lost Lake (see Photo Point 8A in the MBCC Scoping Comments).**

Refer to Response 15.1.1 for a discussion of the critical viewpoints. The Forest Service believes that the criteria for selecting critical viewpoints were properly and effectively employed in this analysis.

Photos contained in the project file document the heavy vegetative screen on the south side of CR 130. This vegetative screen would block the view of the proposed projects from most locations on CR 130 (there are periodic openings in the trees which could provide a view of the ski area). Photo Location 3 in the MBCC scoping comment is virtually the same location as Critical Viewpoint #3 in the DEIS.

Critical Viewpoint #4, the proposed bridge perspective drawing, was chosen and angled to provide a view of the bridge and bottom terminal of the proposed Placer Express. The other simulations depict what the trails would look like.

From the location of Photo 7a in the MBCC scoping comment, at Hessie Townsite, proposed ski trail P-6 would likely be visible in the foreground, and possibly a portion of P-5. However, given the low elevation of that site, it is possible that vegetation would partially screen the trail viewed from that angle. As a

cumulative effects project, the Moose Glade chairlift and terrain could also be visible from this location (i.e., Photo 7b in the MBCC scoping comment). Hessie Townsite was not selected as a critical viewpoint because there are other viewpoints that show more of the proposed projects (including P-5 and P-6) and experience higher levels of public use.

From the location of Photo 8a in the MBCC scoping comment, it is likely that proposed ski trails (primarily P-6) would be visible in the middleground distance zone. The topography in the area would partially screen the projects from this location. As a cumulative effects project, the Moose Glades chairlift and ski trails would be visible from this location. This location was not selected for a visual simulation because the other viewpoints show more of the proposed projects and experience higher levels of public use.

**15.3.2 The analysis in the DEIS lumps the visual impacts of the new lifts and trails together with those of the existing improvements, particularly on the backside. For instance, when discussing the visual impacts from Critical Viewpoint #2, the DEIS states Existing ski trails and minimal glading are currently visible from this location, so an incremental visual change would be experienced from this critical viewpoint. Id. at 3-77. This same conclusion is voiced for Critical Viewpoint #3 (id. at 3-78). However, the new improvements will place more of the visual impacts in the foreground and much closer to the viewing public. They are less visually subordinate to the landscape character and less compatible or complimentary to the character of the landscape being viewed when placed in the foreground. In addition, the analysis is more geared towards the summer landscape (see the description of colors and contrast, DEIS at 3-70). During winter there is greater contrast between the white of the ski runs and green of the surrounding forest (after the wind has blown off new snow). For example, see Photo Point 4 in the MBCC Scoping Comments, dated August 31, 2012.**

The DEIS, Chapter 3, Section C – Scenery Resources disclosed impacts to visual resources in the study area, including the distance from which projects would be visible. As discussed in Response 15.3.1, vegetation would screen much of the proposed projects from the immediate foreground for travelers on CR 130.

The Forest Service analyzes scenic impact in the most sensitive situation. The scenic analysis focuses on summer visibility because it is assumed that there are a larger number of people recreating in the Hessie/Fourth of July Road area during the summer. The number of viewers is an important factor in the analysis of scenic sensitivity. The visual impact of the proposed projects would be greater during the winter because, as the commenter notes, the white of the ski trails contrasts with the green of the surrounding vegetation to increase visibility.

**15.3.3 LODGE ON THE MOUNTAIN** I see it is to be built on the flat area under the Indian Peaks lift. I was told that it would not be visible from anywhere. As I look out my window today, I can see that area. All of Nederland can see it. Maybe even, Boulder and the plains can see it. I would like to be assured that the building would be low enough to not be seen when we all look at the divide. Also, no lights, ever! If that building were lit at night, it would be visible for a long, long way. Boulder County has always strictly controlled what we see on the divide. There could be a huge visible impact from this building.

A viewshed analysis on the proposed Challenge Mountain Facility is contained in the project file. The viewshed model assumes a building height of the proposed Challenge Mountain Facility of 40 feet and does not incorporate vegetation, structures, or any other visual obstacles besides terrain. According to this viewshed analysis, the proposed Challenge Mountain Facility would be visible from parts of Nederland, approximately 4 miles away. However, the viewshed model indicates that existing infrastructure (including the top terminals of the Corona, Challenge, and Indian Peaks chairlifts) is already visible from Nederland. The proposed Challenge Mountain Facility would increase the visibility of ski area infrastructure minimally. See Response 15.2.1 for a description of night lighting on proposed guest service facilities.

**15.3.4 MAINTAIN SCENERY.** We believe that the analysis of scenery resources is inadequate, and we disagree with a number of the conclusions. The context of the site, being a major portal for access to the Indian Peaks Wilderness and the Fourth of July Valley, is disregarded in terms of sensitivity of the viewscape. Your primary frame of reference is towards the perspective of the ski area, hence the goal is to achieve a low level (moderately altered) of scenic integrity. Somewhere, the fact that this is an entrance to the Indian Peaks, not just in summer, but also in winter where recreationalists are snowshoeing, walking and skiing, needs to influence the sensitivity of the viewscape. It is probable that the Toll Property should have been given a 4.3 - Dispersed Recreation prescription. And one of the goals of the current effort to manage parking at Hessie is to prohibit parking at Hessie proper, with only trail access.

The context of the site was considered throughout the visuals analysis. The Hessie/Fourth of July Road trailhead is heavily used year-round, and the presence of numerous vehicles at the trailhead partially contributes to this context. In general, while this area is an access to the Indian Peaks Wilderness, it is in close proximity to the Town of Eldora, an existing ski area, and is a very popular trailhead. From the Hessie/Fourth of July Road fork, hikers would walk approximately 2 miles before they enter the Indian Peaks Wilderness. The hike is approximately 0.3 mile shorter if users continue to drive past the fork, through the stream, to the Hessie Townsite and location of the trailhead. During the winter, recreationalists would walk approximately 0.75 mile from the end of the plowed road at the Town of Eldora to the Hessie/Fourth of July Road fork. Thus, while certainly some recreationalists in both the winter and summer use this area to access the Indian Peaks Wilderness, the majority of recreation would occur outside of the designated Wilderness area proper. All of these considerations contribute to the context of the landscape, both in winter and summer.

## 16.0 CULTURAL

### 16.1 General

**16.1.1 Archaeology: on page 2-18 is the statement that survey was done, and artifacts will be dealt with only if they are found while digging. I see no competent trained monitoring of all earthmoving by archaeologists being planned, and without them the numerous ancient sites in the area adjacent to Middle Boulder Creek, and to the south of it, would be destroyed. On page 2-56 is another statement that survey was done, and stating that transects were 20 meters apart. Clearly that was designed to encounter mid- to large-scale mining operations, and it was successful. Mining in that area took place largely between 1880 and 1910, a 30-year period. The towering problem is that a survey with 20m transect spacing is unacceptable if one is responsibly surveying for ancient archaeological sites, most of which are much smaller than that. You find what you look for, and clearly that did not include ancient features or artifacts. As I mentioned in my apparently ignored scoping comments many months ago, we found ancient artifacts while digging our foundations for our cabin at 150 S 7th St in Eldora, in precisely the same ecotone as the proposed major impacts of the ski area expansion, and just a very short distance downstream. Because Native Americans were moving through the area in question, hunting, gathering, camping, fashioning tools, and various other activities for some 15,000 years, it is time to take that responsibly and not just look for 30 years of mining features. Don't Native Americans count? Don't they matter? They certainly do to me. I heartily and professionally disagree with the summary archaeological claim made on page 3-34: Expectations for the discovery of additional prehistoric or cultural materials are low. Of course they are low after a survey was done that was designed to minimize their being discovered, and they were not found. This is not an acceptable conclusion based upon flawed research that was deliberately biased.**

The table on page 2-18 of the DEIS referenced in this comment is the list of “design criteria and best management practices.” The comment does not accurately reflect the design criteria listed in this table. Table 2-3 states, “Although site-specific surveys have been conducted, if undocumented historic and/or prehistoric sites are located during ground disturbing activities or planning activities associated with approved construction activities, they will be treated as specified in 36 CFR 800.13 concerning Post Review Discoveries.” The Forest Service always includes this reference as a design criteria and best management practice in their NEPA projects to comply with 36 CFR 800, the regulations that implement the National Historic Preservation Act (NHPA).

The entire area of potential effect as defined by 36 CFR 800.16(d) was surveyed to the professional standards commonly used within the State of Colorado and the Forest Service prior to the release of the Draft Environmental Impact Statement. These survey standards are developed in consultation with the State Historic Preservation Officer (SHPO) in an effort to locate all cultural resources (defined as: an object or definite location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence that is more than 50 years old) located within the area of potential effect. During this intensive cultural resource inventory, no prehistoric sites (Native American

sites) were located in the area adjacent to Middle Boulder Creek and to the south of Middle Boulder Creek.

The comment does not accurately represent the information presented on page 2-56 of the DEIS. The information presented on page 2-56 of the DEIS is a summary of the cultural resources located during the intensive pedestrian inventory and a comparison of the effects across the alternatives. Information about the cultural resource inventory strategy are found on pages 3-91 through 3-95 of the DEIS. In this discussion of cultural inventory strategy discloses that the spacing for pedestrian transects were “spaced at no more than 20 meters apart.” The Forest Service requirements for an intensive pedestrian inventory for cultural resources and survey requirements within the State of Colorado call for survey transects that are no greater than 20 meters. This is the professional standard developed in consultation with the State Historic Preservation Officer to locate all cultural resources (defined as: an object or definite location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence that is more than 50 years old) located within the area of potential effect.

The results of the cultural resource inventory included several sites that were 2 x 2.5 meters in size, so clearly the survey strategy located small cultural resources.

This comment does not accurately describe the information presented on page 3-34 of the DEIS. This page describes specific actions in Alternative 2 and its impact on current and proposed projects in the area. The information on page 3-34 of the DEIS does not address cultural resources. The referenced quote is found on page 3-94 of the DEIS: “Expectations for the discovery of additional prehistoric or cultural materials are low considering the topography and geography of the area.” The cultural inventory report was submitted to the SHPO for review of the adequacy of the report, eligibility determinations of the cultural resources located and the projects potential to affect significant cultural resources. SHPO accepted the report as professional and complete, they concurred with the determinations of eligibility and effects.

The entire area of potential effect as defined by 36 CFR 800.16(d) was surveyed to the professional standards commonly used within the State of Colorado and the Forest Service prior to the release of the DEIS.

**16.1.2 Alternative 3 brings the noise and crowding of a lift base station to a point of great natural beauty (the foot of Deadman’s Gulch), which is also the resting point of two of Fremont’s men, buried there in the winter of 1845.**

As disclosed in the DEIS (p. 3-93): “The Fremont’s Men Burial (5GL22) was recommended as not eligible to the NRHP; however, avoidance is required until additional data can be gathered (this location is on private land).”

## **17.0 AIR QUALITY**

### **17.1 Climate Change**

**17.1.1 ADDRESS THE POSSIBLE EFFECTS OF CLIMATE CHANGE.** Climate change is likely to affect ski area operations in the future. Winters are likely to be milder, with warmer fall temperatures leading to later opening and/or a greater need for snowmaking. Warm spring temperatures might force earlier closures, or at least lead to poorer snow quality and a poorer experience for visitors beginning in March. Precipitation is likely to become more erratic, with an increase in drought years, and in the severity of drought. Warmer temperatures would accelerate spring and early summer snowmelt, causing a longer period of wet soils and thus extending the time when soil erosion and slope instability could occur on the slopes above Middle Boulder Creek. Any change to a warmer climate would reduce the operability of the Jolly Jug pod, in either proposed (alternative 2 or 3) configuration. It would be difficult under the current climate to ensure that these south to southeast-facing runs would have sufficient quantity and quality of snow, and marginal to inoperable conditions would only get worse with a warming climate. However, the DEIS dismisses climate change as an issue to be considered, in part “because there would be no measureable differences between the alternatives in regards to climatic impacts”. *Id.* at 1-17. However, alternative 3 proposes a much larger expansion into Jolly Jug than does alternative 2. And since alternative 3 would not expand elsewhere, disruption of use of the Jolly Jug pod due to poor snow conditions caused by a warming climate would have a greater effect on the operation of EMR than would occur under alternative 2. However, there could still be problems with operability under alternative 2, as warmer temperatures and more frequent drought could cause a need for additional water for snowmaking, which might not be available. Even with the dismissal of climate change as an issue for the proposed expansion, the DEIS has a brief summary of the possible effect of climate change on lynx and its habitat. See *id.* at 3-166. But even that is minimized by saying that either action alternative would probably be implemented before any measurable effects from climate change could be discerned. *Ibid.* In fact, the changes to habitat by the project could exacerbate climate-change impacts to lynx by destroying habitat that might otherwise remain intact and suitable. In any case, climate change impacts are likely to occur for the foreseeable future, regardless of which alternative is selected. These impacts must be disclosed. In any case, the effects of climate change by and for both action alternatives should be analyzed and disclosed. Also, the following should be analyzed: the full carbon footprint of each alternative, including, but not limited to, traffic to and from the ski area; energy used for various services, including snowmaking; and carbon sinks lost due to the removal of trees and the destruction of existing and future regeneration.

The impacts of climate change on the EMR operation is beyond the scope of this analysis.

As discussed in the DEIS (p. 1-17), the issue of climate change was dismissed from further documentation because there would be no measureable differences between the alternatives in regards to climatic impacts. The spatial and temporal scale of climate change is many orders of magnitude larger than that of the projects outlined in this document. Thus, differences between alternatives would be immeasurable or negligible. A comparison of the CO<sub>2</sub> emissions increase to total annual CO<sub>2</sub> emissions in

the United States and worldwide demonstrates the difficulty in assessing the effects that either alternative has on climate change. If we assume that the total difference in CO<sub>2</sub> emissions (i.e., about 274 tons/day) from both operation and construction activities occurs every day of the year, the total annual CO<sub>2</sub> emissions from the EMR expansion would be 99,745 tons/year (the actual expected increase in CO<sub>2</sub> emissions is about 49,000 tons/year in the first year [this includes construction and operational activities] and 445 tons/year in subsequent years [this is for operational activities]). The total CO<sub>2</sub> emissions emitted annually in the United States is about 6,000,000,000 tons/year and worldwide is about 235,000,000,000 tons/year.<sup>9</sup> Thus the CO<sub>2</sub> emissions expected from either action alternative would represent at most roughly 0.0017 percent of CO<sub>2</sub> emissions in the United States and 0.000042 percent of CO<sub>2</sub> emissions in the world. Even if the loss of carbon sinks, which has not been estimated and is beyond the scope of this analysis, is included in the emissions total, these percent contributions will not change noticeably. As such, the current state of the science is incapable of adequately estimating the impact that the EMR expansion effort has on global climate change as the change in CO<sub>2</sub> emissions is comparatively much lower than current worldwide CO<sub>2</sub> emissions estimates.

## **17.2 General**

### **17.2.1 The Final EIS needs to clarify if the air quality models are using AADT or seasonal numbers.**

For the purpose of modeling with NONROAD2008a and MOVES2010b, the default monthly data for each model were updated to reflect the additional projected monthly activity that is expected to be experienced under the EMR expansion scenarios.

### **17.2.2 THE AIR QUALITY ANALYSIS IS INCOMPLETE. Chapter 3 of the DEIS contains an analysis of possible air impacts, both from construction and from expected increased vehicle use to access EMR after implementation of either action alternative. Tables 3B-8 and 3B-9 disclose some of the expected emissions as well as the current levels of them, but PM 2.5 and ozone are not listed in these tables. This is the case even though the 8-hour standard for ozone is already “routinely exceeded”. Id. at 3-44. Disturbingly, the Forest Service does not believe that the application of modelling needed “to truly quantify the predicted impacts to air quality (e.g., visibility, 8-hour ozone)” is warranted. Id. at 3-55. Even if there appears to be a declining trend in ozone emissions overall (id. at 3-44), the levels of at least this pollutant expected under the action alternatives must be disclosed. Failure to do so is a violation of both the National Environmental Policy Act and the Clean Air Act.**

Ozone is not directly emitted. Instead, ozone is formed as a result of a complex series of chemical reactions involving hydrocarbon and NO<sub>x</sub> emissions. As such, the models used in this effort do not quantify ozone. In order to quantify the impact on ozone, it is necessary to use an advanced, one atmosphere photochemical model such as CMAx or CMAQ, which was beyond the scope of this analysis.

---

<sup>9</sup> World Bank, 2014

PM2.5 is a component of PM10. If one assumes that all the PM10 emissions are actually PM2.5 emissions, then the total PM2.5 emissions increase from construction activities is estimated to be 0.02 tons/day and from operational activities is estimated to be 0.0 tons/day.

**17.2.3 The Ski Area or operator responsible for construction or maintenance of any (existing or new) unpaved roadway which has vehicle traffic exceeding 150 vehicles per day in non-attainment areas (averaged over any consecutive 3-day period) from which fugitive particulate emissions will be emitted shall be required to use all available, practical methods which are technologically feasible and economically reasonable in order to minimize emissions resulting from the use of such roadway in accordance with the requirements of Section III.D. Colorado Air Quality Control Regulation 1.**

The DEIS included the following PDC that address relevant emissions regulations. Furthermore, the Forest Service does not anticipate construction of projects to exceed 150 vehicles per day on any given roadway.

PDC: “To the extent feasible, site improvements would be installed promptly in order to reduce the potential for dust emissions” (DEIS p. 2-36).

PDC: “Grading areas, including chairlift terminal areas, would be watered as necessary and practical to prevent excessive amounts of dust. In the absence of natural precipitation, watering of these areas would occur as practical” (DEIS p. 2-36).

**The EIS indicates a new Challenge Mountain facility will be constructed. If the disturbance of the land surface area for this development exceeds 25 contiguous acres and/or six months in duration, the site shall be subject to the requirements of the Colorado Air Quality Control Commission’s Regulation No. 3, which requires an APEN with fee submitted prior to the property’s surface area being disturbed. Additionally, the Ski Area is within an air quality non-attainment area. If the proposed development will clear one acre of land and fugitive particulate emissions will be emitted they shall be required to use all available and practical methods which are technologically feasible and economically reasonable in order to minimize such emissions. Appropriate controls may include, but are not limited to watering, vegetation, synthetic cover, chemical stabilization, furrows, compacting, and other methods or techniques approved by Boulder County Public Health.**

The DEIS included the following PDC that address relevant emissions regulations.

PDC: “To the extent feasible, site improvements would be installed promptly in order to reduce the potential for dust emissions” (DEIS p. 2-36).

PDC: “Grading areas, including chairlift terminal areas, would be watered as necessary and practical to prevent excessive amounts of dust. In the absence of natural precipitation, watering of these areas would occur as practical” (DEIS p. 2-36).

If necessary during construction, the Forest Service may require additional measures to reduce fugitive particulate emissions, including measures approved by Boulder County Public Health.

**17.2.4 All sources of air emissions in Colorado are required to obtain a construction permit unless they are specifically exempted by the provisions of Colorado Air Quality Control Regulation 3. The Construction Permit Unit, located within the Stationary Sources Program of CDPHE, issues construction permits to commercial and industrial air pollution sources in Colorado in order to ensure compliance with air quality regulations. The permitting process and requirements involve a two-phased approach. The first phase requires the source to report air emissions through the submission of an Air Pollutant Emission Notice (APEN). For sources with air emissions exceeding permitting thresholds, the second phase involves the issuing of an air permit. The Final EIS should clearly state the Ski Area's plans to minimize air pollution and obtain all necessary permits.**

Refer to Response 17.2.4 for a discussion of Air Quality PDC contained in the DEIS. The FEIS (p. 1-21) clearly states that EMR would be required to obtain all required permits prior to construction.

**17.2.5 We recommend the Final EIS include a discussion of the Burn Plan process and whether the ARP National Forests develop such plans for pile burns. In addition, we recommend the Final EIS clarify whether pile burns would be subject to the same process that is utilized for prescribed fire treatments as described in the Interagency Prescribed Fire Planning and Implementation Procedures Guide (November 2013). Lastly, we recommend the Final EIS include pile burning acreage and provide a qualitative discussion of short-term air quality impacts associated with the burning of these piles.**

As disclosed in the DEIS (p. 2-10) forest material removed through vegetation management projects could be burned. Impacts of burning on soil resources is disclosed in the DEIS (p. 3-316). The Interagency Prescribed Fire Planning and Implementation Procedures Guide (April 2014, supersedes November 2013) calls for the development of a general fire plan to be updated for specific prescribed burns. EMR would consult with the Forest Service to develop adequate burn plans for and prescribed burns.

The utilization of pile burns would depend on the size of tree slash, weather conditions, and air quality conditions but this treatment could be used for between 0 and 25 percent of material. Pile burns would result in short-term, localized air quality impacts including impaired visibility, unpleasant odors, and potential eye irritation. Direct effects would be greatest in the immediate vicinity of the prescribed burn operations. Because most smoke is dispersed within 24 hours of burning, indirect effects to people would occur after one day. These indirect effects would be caused by residual smoke from smoldering fuel concentrations. Outlying areas may also experience indirect effects such as impaired visibility due to diluted, dispersed smoke. Typically, the timing of prescribed burn treatments is chosen based on meteorological conditions in order to limit smoke impacts. Burn treatments would occur outside of any designated high pollution season under atmospheric conditions that encourage mixing and transport, minimizing the amount and duration of particulate emissions.

**17.2.6 The EIS indicates the Lookout Facility will be remodeled. If this work will disturb suspect asbestos building materials greater than trigger levels, then prior to this renovation an Asbestos Inspector, qualified by the Colorado Department of Public Health and Environment (CDPHE), must inspect and test building materials to be affected. If verified asbestos containing building materials must be disturbed, then those materials must be removed prior to the renovation. One exemption does exist for buildings constructed after October 12, 1988: “Buildings, or those portions thereof, that were constructed after October 12, 1988 shall be exempt from this inspection requirement if an architect or project engineer responsible for the construction of the building, or a state certified Inspector, signs a statement that no asbestos containing material (ACM) was specified as a building material in any construction document for the building or no ACM was used as a building material in the building.” Boulder County Public Health recommends that all buildings be inspected prior to any renovation or demolition activities, regardless of the date of construction. This process requirement will prevent unintended indoor asbestos contamination of the facility and unintended outdoor contamination during waste disposal.**

EMR will be required to obtain all necessary permits prior to construction activities. A PDC has been added to the FEIS (p. 2-36) regarding the proper treatment of asbestos, if found. “If the renovation of the Lookout will disturb suspect asbestos building materials greater than trigger levels, then prior to this renovation an Asbestos Inspector, qualified by the Colorado Department of Public Health and Environment (CDPHE), must inspect and test building materials to be affected. If verified asbestos containing building materials must be disturbed, then those materials must be removed prior to the renovation.”

**17.2.7 The USFS portion of the proposed EMR expansion lies within the Metro-Denver/North Front Range (NFR) 8-hour ozone nonattainment area and the Metro-Denver PM10 maintenance area. Therefore, general conformity would apply to a Federal action applicable to the proposed EMR expansion on USFS lands. We note that general conformity analysis or conformity determination (as appropriate) are not required to be completed concurrent with the NEPA process, but recommend that consideration be given for doing so for purposes of efficiency. A discussion of general conformity or its requirements is not included in the Draft EIS. We recommend that the Final EIS address general conformity and its requirements with the Colorado State Implementation Plan. Please refer to the enclosed detailed comments for more information. The EPA is available to discuss conformity options with you if that would be useful.**

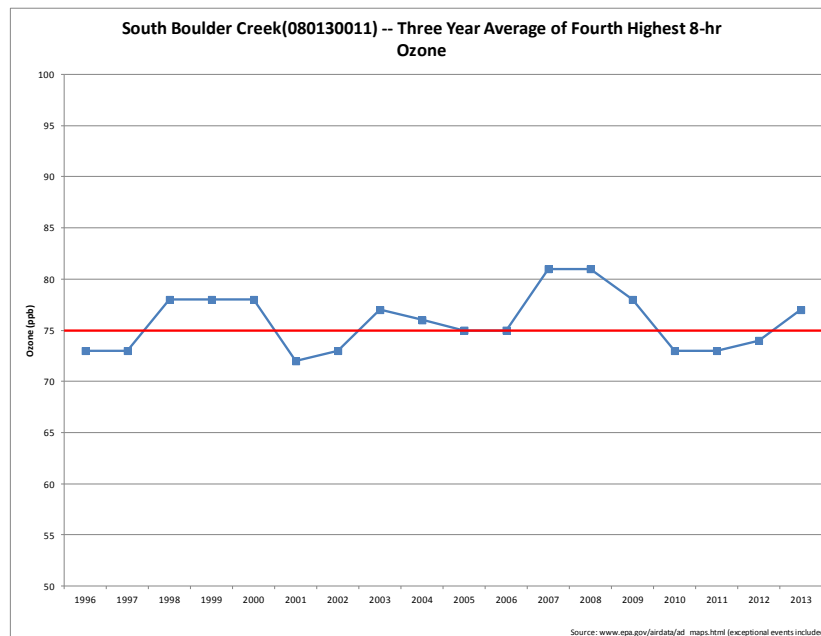
General conformity requirements are disclosed for informational purposes in the FEIS (p. 3-44). The Forest Service did not conduct a general conformity analysis as part of this NEPA process. The DEIS identifies that the NO<sub>x</sub> threshold could be exceeded if all assumed equipment is operating simultaneously during a 130 day construction period. This is a worst-case scenario and the Forest Service anticipates far fewer days of this intensity of construction activity. Additional PDC incorporated in the FEIS (p. 2-36) would be reduce emissions to conform to requirements.

**17.2.8** We recommended in our August 29, 2012 scoping comments that the Draft EIS include a discussion regarding the USFS's plans to address the CAA and 40 CFR 93 "Subpart B" General Conformity requirements for emissions from the proposed project in the ozone nonattainment area and the PM10 maintenance areas identified in the body of our comment letter. As noted in 40 CFR 93 Subpart B, a determination must be made that emissions from a Federal action will or will not exceed an applicable de minimis threshold level for the criteria pollutant of concern, which is 100 tons per year for a PM 10 maintenance area such as the Metro-Denver PM10 maintenance area and 100 tons per year of ozone precursors (NOx or VOCs) for the Metro-Denver/NFR 8-hour ozone nonattainment area. If direct and indirect PM 10 or NOx or VOC emissions from project activities/operations in the respective nonattainment or maintenance area will exceed the 100 tons per year threshold level, then a full general conformity determination is required to document how the Federal action will affect implementation of the applicable plan for the area to reach attainment or continue maintenance. A Federal agency may use a combination of the criteria listed in section 40 CFR 93.158 to get a project to conform (See General Conformity Guidance, page 19 July 13, 1994).

See Response 17.2.8.

**17.2.9** The Draft EIS provides data on ambient air quality values from the CASTNET air monitoring data for years 2008 through 2011 (p. 3-44). The calculated 8-hour ozone NAAQS values are very close to the 8-hour ozone NAAQS of 75 ppb and a violation of that NAAQS is 76 ppb (i.e., calculated design values of 74 ppb and 75 ppb). The EPA recommends that if additional data and calculated design values are available for 2012 and 2013, they be included in the Final EIS.

The 2013 CASTNET data set for the Boulder monitoring site has been incorporated into the revised graphic, below. The CASTNET data for the Rocky Mountain National Park has not been updated as of August 26, 2014 so these graphics have not been updated.



**17.2.10 The EMR is adjacent to the Indian Peaks Wilderness Area, a sensitive Class II area. In addition to the two BMPs noted in the Draft EIS for air quality impacts related to dust emissions (p. 2-36), the EPA recommends that additional BMPs be considered for inclusion for the construction phase of the projected expansion to assist in reducing ozone precursor emissions of nitrogen oxides (NO<sub>x</sub>) and volatile organic compound (VOC) during summertime construction. Specifically, the EPA recommends the following additional construction mitigation measures be considered for this project and included in the Final EIS: Prohibit unnecessary idling of construction equipment; Require use of low-sulfur fuel; Require heavy construction equipment to use the cleanest available engines (Non-road Tier 4) or be retrofitted with diesel particulate control technology. Use alternatives to diesel engines and/or diesel fuels such as: biodiesel, LNG or CNG; For any winter time construction, install engine pre-heater devices to eliminate unnecessary idling; Prohibit tampering with equipment to increase horsepower or to defeat emission control devices effectiveness; and Require construction vehicle engines to be properly tuned and maintained; and use construction vehicles and equipment with the minimum practical engine size for the intended job.**

The PDCs recommended by EPA have been incorporated into the FEIS (p. 2-36):

- Unnecessary idling of construction equipment is prohibited.
- Use low-sulfur fuel, if possible.
- Heavy construction equipment should use the cleanest available engines (Non-road Tier 4) or be retrofitted with diesel particulate control technology, if possible.
- Use alternatives to diesel engines and/or diesel fuels such as: biodiesel, LNG or CNG, if possible.
- For any winter time construction, install engine pre-heater devices to eliminate unnecessary idling.
- Prohibit tampering with equipment to increase horsepower or to defeat emission control devices effectiveness.
- Construction vehicle engines must be properly tuned and maintained.
- Use construction vehicles and equipment with the minimum practical engine size for the intended job, when possible.

**17.2.11 We recommend that “Table 3B-3 on page 3-43 of Chapter 3 also include the PM<sub>2.5</sub> 24-hour NAAQS, which is 35 µg/m<sup>3</sup> (ref. October 17, 2006, 71FR61144).**

Table 3B-3 has been updated in the FEIS (p. 3-43) to include the PM<sub>2.5</sub> 24-hour NAAQS.

## 18.0 NOISE

### 18.1 Construction Noise

**18.1.1 Numerous truck trips would come across the new bridge and through Town, removing the material cut to install the Placer lift and associated runs. DEIS at 3-48, 3-127. Even if there would be no noise violations (of the Boulder County ordinance) as claimed, the presence of these trucks coming through Town would be disruptive to residents and recreationists. Even worse would be blasting with dynamite, under which noise levels could reach 129 to 134 dBA (id. at 3- 127), an extremely high noise level. It is not clear from the description in the DEIS what distance this is measured from, but it likely would be felt as well as heard in Town and in the recreation areas just to the west. As states in section IV above, the effects of blasting have not been disclosed in the DEIS. Generally, see additional comments on noise in section XI below.**

As discussed in the DEIS, Chapter 3, Section F – Noise, the development of the Placer Express and associated terrain would require approximately 106 truck trips through the Town of Eldora (DEIS p. 3-127). Noise from these vehicles is not expected to reach or exceed the 88 dBA threshold established by the Boulder County Noise Ordinance for vehicles with a manufacturer’s gross vehicle rating of 10,000 lbs. or more. Additionally, as disclosed in the DEIS (p. 3-127), EMR would conduct limited rock blasting through the use of dynamite within the Placer chairlift and terrain pod. The acoustic levels of airblast, or air pressure, is measured in dB. The maximum airblast limits range from 129 dB to 134 dB. Blasting would occur over an approximate 15-minute period over several days during construction. To reduce noise impacts, blasting could occur in the springtime when snow is still present. The installation and replacement of chairlifts would also require a helicopter. Helicopter use would take place over approximately seven days for each chairlift, and would be expected to travel between the main EMR parking lot and the chairlift location for approximately 11 hours/day (between 7:00 a.m. and 6:00 p.m.), depending on weather conditions. Helicopters could also be used for logging operations for approximately seven to ten days and similar hours of operation.

The DEIS discloses that additional noise could impact the recreational experience for users in the Hessie/Fourth of July Road area under Alternative 2 (DEIS p. 3-22). The FEIS (pp. 3-126–3-128) has been updated to include more discussion of noise impacts in the Town of Eldora. Blasting would likely be heard from the Town of Eldora over a period of a few days and the noise impacts of truck trips would be short-term. Table 2-3 in the DEIS contains PDC that would minimize noise impacts to the Town of Eldora from construction, such as using as few vehicles as possible to shuttle employees to work sites, accessing projects from the base area rather than through the Town of Eldora wherever possible, and performing blasting when snow is still present (DEIS p. 2-18).

## **18.2 General**

**18.2.1 Avalanche Impact - I could not find any reference to the noise or environmental impact from avalanche control. Early morning avalanche blasts at the EMR occur regularly during the winter and are loud and disturbing. Why is this environmental concern not addressed in the process? What are the impacts on the water and noise level, and how will they be monitored and minimized? What kind of dynamite or blasting material is used? Alternative 2 would exacerbate the avalanche impact issues due to the proximity of the proposed expansion to the Town of Eldora, its residents and the Middle Boulder Creek.**

EMR does not anticipate increased avalanche control work due to the proposed projects.

**18.2.2 We believe that the analysis of noise impacts is deficient. At a meeting in the fall of 2012 between representatives of the Forest Service, SE Group, and MBCC, to a person, we feel there was a promise made by the Forest Service and SE Group to conduct a complete soundscape analysis with noise measurements being taken at several locations starting in the center of Eldora and going up to Hessie. The analysis conducted in the DEIS is qualitative, and there is much conjecture. This is a major disappointment, as we elaborate on below. · The DEIS provides information about the sound generation of each snowmaking gun and states when there are two guns, the sound level is not additive. Id. at 3-121. But what is the sound level from 20 or more guns lined up on each side of a ski run? That is the scenario likely to occur in making snow on a ski run. · The qualitative analysis throughout this section of the DEIS describes the ridgeline between the community of Eldora and the ski runs on the back side and concludes that this ridgeline dampens the noise originating from the ski area (snowmaking, grooming vehicles, etc.). DEIS at pages 3-121 et seq. We feel this assumption is in error. The valley of Middle Boulder Creek is a glaciated U-shaped valley, having walls on both sides. Sounds reverberate in the valley, bouncing off of the opposite valley wall as well as the wall from where it emanates. The valley wall opposite the backside ski runs has several large rock outcrops, which assist in the sound reverberation. Those of us who have lived in valleys understand the phenomena that you often hear a sound better on the opposite side of the valley than on the same side. We feel it is likely that there is no dampening of the noise originating on the backside of the ski area by the ridgeline. · In the DEIS' rebuttal of the sound measurements taken during the winter of 1994/95 (id. at 3-122), the implication is that the measured sound levels, which were equal to a person talking at 3 feet away or an electric shaver at 1.5 feet. The point was missed. These readings were of snowmaking sounds emanating from where the ski runs are currently located - generally well over 1,000 feet away. What will the sound be like when 20 or more ski guns are located from 160 feet (the approximate distance of the bottom of Placer lift (Paul Alford, email communication of March 14, 2014) to 1,000 feet in a valley with walls on both sides? Wouldn't someone talking to you all day or your shaver running all day be annoying? · We strongly believe that the acoustic experience of winter recreationalists using the trail (CR 130) west of the community of Eldora will be degraded by the presence of the ski lift and runs coming down to Middle Boulder Creek. The ambient soundscape includes all the sound emanating from the ski area, including snowmaking, lifts, the occasional snowmobile, and the sounds of skiers coming downhill. Many of us enjoy snowshoeing and cross-country-skiing, and this is not the experience we desire when heading out on the trail.**

**These sounds could occur during a significant portion of a daily outing. Many recreationalists don't go very far, but let's say that Lost Lake is an average destination. It is 2.6 miles from the west end of Eldora. From the west end of the community of Eldora (where you can begin hearing snowmaking) to the Hessie fork is .75 mile, thus 29% of a round trip to and from Lost Lake would be directly below the Placer lift and runs, and be directly within the soundscape of the ski area. From the west end of the community of Eldora to the west end of Hessie is 1.05 miles, so 40% of the round trip to and from Lost Lake would be within the ski area's soundscape. And under the right conditions, the sound would likely be heard on the switchback on the trail heading to Lost Lake but before the cascades, which is 1.75 miles from the west end of Eldora. In this case, 67% of the trip would be within the ski area's soundscape. And if the next phase of ski area expansion on the backside is built, as proposed in the 2011 Master Development Plan (Moose Glade Express chairlift and terrain), the acoustic presence of the ski area would increase.**

The noise impact from snowmaking infrastructure is contained in the DEIS, Chapter 3, Section F – Noise. As disclosed in the DEIS (p. 3-124), the number of snow guns that are used at one time at EMR is not expected to change; remaining in the 30 to 35 range. The highest number of guns used at one time is also expected to remain within the range of plus or minus 66 guns. The sound generation from multiple snowguns is not additive. While the sound intensity is not multiplied by the number of sound sources, a greater number of snowguns would produce more sound (DEIS p. 3-121). The Forest Service believes that the impact of this sound is adequately analyzed and disclosed in the DEIS.

As disclosed in the DEIS, “proposed snowmaking on the trails served by the Placer chairlift would be relatively short in duration, lasting for only a few days of the total snowmaking season. Much of the snowmaking noise experienced in the Town of Eldora is expected to continue to be a result of snowmaking on the front-side of EMR, as more snowmaking, at longer durations, would continue on the front-side terrain (including terrain serviced by the EZ, Caribou, Sundance and Race chairlifts)” (DEIS p. 3-125).

The DEIS discloses that additional noise could impact the recreational experience for users in the Hessie/Fourth of July Road area under Alternative 2 (DEIS p. 3-22). Additionally, as discussed in the DEIS, snowmaking typically occurs during an approximately 90-day period, between mid-October and mid-January. Thus the noise impacts to the recreational experience for dispersed users in the Hessie/Fourth of July Road would be temporally limited, and likely most noticeable during the beginning of this period. Noise impacts of other operations such as chairlifts and maintenance equipment would likely be variable and of short-duration, and would thus not have minimal effects on the recreational experience.

## **19.0 CUMULATIVE EFFECTS**

### **19.1 Concerns about Future Development**

**19.1.1 The proposed bridge across Middle Boulder Creek and the Placer lift would pave the way for future expansions of the ski area, which I would strongly oppose. The larger SUP described in Alternative 2 would also ease the future creation of the Moose pod, which was depicted in the Scoping documents, but not in the DEIS. I would oppose that expansion as well.**

Projects contained in EMR's 2011 Master Plan were considered throughout the analysis as reasonably foreseeable future actions, and impacts were discussed cumulatively. The Moose Glades Express chairlift was not included in the scoping maps to be analyzed for this EIS. Rather it was available at the public scoping meetings for reference information. The Moose Glades project that is included in the 2011 Master Plan would require a separate site-specific NEPA analysis and approval.

### **19.2 General**

**19.2.1 I further suggest that the synergistic effect of this pollution load with the pollution being caused by the 51,000 fracking sites in Colorado be addressed.**

This is beyond the scope of this analysis. Because the action alternatives are expected to have minimal impacts on air quality, proposed projects would have negligible impacts at the state scale (DEIS p. 3-55).

**19.2.2 The cumulative impacts analysis needs to include the following existing conditions:**

- **Open space lands being purchased by Boulder County and the Eldora Civic Association around the community of Eldora, Hessie, Lost Lake and other sites in the Indian Peaks.**
- **The Hessie Parking Plan and summer Shuttle. The cumulative impacts need to include the following reasonably foreseeable future conditions:**
- **Summer recreation at EMR.**
- **The likely failure of the gated bridge below the Placer lift to keep out hikers and mountain bikers.**

The acquisition of open space by Boulder County and the Eldora Civic Association would have a positive impact on those lands by removing the development rights they once possessed. This action would reduce long-term development potential in the area. These projects would improve the quality of dispersed recreation, wildlife habitat, and overall ecosystem health in the area. The proposed project could have impact some characteristics of these properties (e.g., visual), but it is not anticipated that it would jeopardize the overall qualities and value of an open space parcel.

The Hessie Parking Plan was not considered cumulatively in this analysis because the Forest Service has not received a proposal for this project. The Affected Environment discussion in Chapter 3, Section B – Traffic, Parking, and Air Quality has been updated to include a discussion of the summer shuttle, which is currently in operation and transports users from parking lots at the Nederland High School to the Hessie

Trailhead. This shuttle decreases the demand for parking at the Hessie/Fourth of July Road fork and facilitates increased use of the area.

Use of the bridge across Middle Boulder Creek would be limited to authorized use only, and other use would be illegal. The Forest Service is not obligated to analyze the impacts of illegal activity. Additional PDC have been included in the FEIS (Table 2-3 p. 2-17) to monitor this situation.

See Response 12.5.3 for a discussion of summer recreation.

**19.2.3 The Town of Nederland is considering a high density annexation and development just east of the Nederland Water Treatment Plant. Access would be via the Eldora road. As many of the previous comments have stated the traffic on this road during select weekends is gridlocked. The ski area has stopped vehicles from continuing past the High School and at times from turning on to the Eldora Road. With the aforementioned annexation still in question and the potentiality of even more severe gridlock, it seems logical that a solution to the current problem needs resolution before any ski area expansion is considered.**

In March 2014 the Town of Nederland heard and considered this petition for the annexation of 17 acres of land at 1250 Eldora Road (Arapaho Ranch). In their review of the application on February 26, 2014, the Planning Commission recommended denial four to one. A petition has been submitted to the Board of Trustees. However, there is no set densities or real plan yet. The Town of Nederland is currently working with an applicant regarding this project. The project would have impacts to various environmental and social resources. Through the Town and County process, a traffic analysis would be conducted for the annexation project.

**19.2.4 The DEIS should address the cumulative impacts of full build-out of the Ski Area's Master Plan, not just the impacts from this first phase. Cumulative impacts are the result of the incremental effects of any action when added to other past, present, and reasonably foreseeable future actions. The Ski Area's Master Plan timeframe is five to ten years and is the basis for the Purpose and Need in the DEIS - full build-out is reasonably foreseeable.**

Appendix A: Cumulative Effects Projects of the DEIS contains a list and description of all projects considered in the cumulative effects analysis. In Chapter 3 of the DEIS, all projects in the 2011 Master Plan were analyzed cumulatively in the following resource analyses: Recreation, Mountain Operation and Guest Services; Traffic, Parking, and Air Quality; Scenery; Social and Economic Resources; Noise; Fish and Wildlife; Plants; Watershed, Wetlands, and Soils.

**19.2.5 Appendix A includes the 2011 Master Plan as one of the "cumulative effects projects" that are to be considered when analyzing impacts in the DEIS. It states, "The projects in the Master Plan that are not part of this Proposed Action and/or Alternative 3 would require their own site specific NEPA analysis prior to implementation but are considered reasonably foreseeable future actions" (p. A-1). Yet, none of the wildlife (or scenic, or many other resource) impact sections include the Moose Glade Express lift nor the 5 or 6 other runs that are proposed in the Master Plan that would come down to Middle Boulder Creek. Also not included is the new connecting road joining the base of the Placer lift with the base**

**of the Moose Glade Express; this road is about 1800 feet in length, and would traverse the “nearly 100 percent effective” habitat of the floodplain terrace.**

The Moose Glade pod project included in the 2011 Master Plan was discussed to varying degrees based on the relevance of the resource in the following DEIS Cumulative Effects analysis:

- Recreation, Mountain Operations, and Guest Services
- Traffic, Parking, and Air Quality
- Scenery Resources
- Social and Economic Resources
- Noise
- Fish and Wildlife
- Watershed, Wetlands, and Soils

See Response 14.5.1 for a discussion of the access road to the Moose Glade Express.

See Response 8.3.18 for a discussion of cumulative effects on fish and wildlife.

**19.2.6 Further, the USFS is looking at the impacts just from this one project, not considering the cumulative effects of different projects, plus the effects of other stressors such as global warming, more frequent and intense fires, more frequent and widespread insect outbreaks, and continuing population growth and non-quiet recreation in Colorado forests.**

Appendix A: Cumulative Effects Projects of the DEIS contains a list and description of all past, present, and reasonably foreseeable future projects considered in the cumulative effects analysis. According to the CEQ handbook about cumulative effects analysis, “cumulative effects analysis should ‘count what counts’, not produce superficial analyses of a long laundry list of issues that have little relevance to the effects of the proposed action or the eventual decisions.”<sup>10</sup> Cumulative effects analyses require the definition of past, present, and reasonably foreseeable future actions that could contribute to a cumulative effect on resources, ecosystems, and human communities. According to the CEQ handbook, “a critical principle states that that cumulative effects analysis should be conducted within the context of resource, ecosystem, and human community threshold—levels of stress beyond which the desired condition degrades. The magnitude and extent of the effect on a resource depends on whether the cumulative effects exceed the capacity of the resource to sustain itself and remain productive.”<sup>11</sup> When considered cumulatively with the list of projects contained in Appendix A of the DEIS, the proposed project would not have impacts of the scale and scope necessary to contribute to large-scale trends and stressors such as those mentioned in this comment.

---

<sup>10</sup> Council on Environmental Quality, 1997a. p 12

<sup>11</sup> Ibid. p 7

## 20.0 DESIGN CRITERIA/CONSERVATION MEASURES

### 20.1 Illegal Skier Access at MBC Bridge

**20.1.1 The proposed Placer Lift will also be a temptation for skiers trying to access this lift from CR-130, which is not maintained in the winter. Not only will this create a traffic issue, as there is no winter parking in the town of Eldora, but it is a safety issue as well. The bridge will be closed by a barrier, but with a frozen river in the winter, the temptation will be very strong for skiers to cross this frozen (or more likely semi-frozen) river to access the lift, with the potential for human injury.**

A PDC has been added to the FEIS (p. 2-17) stating that signs would be placed in the vicinity of the proposed bridge stipulating that chairlift use is for ticketed guests only. From the end of the plowed road in the Town of Eldora to the access bridge is approximately 0.5 mile, and winter use is not expected to create a traffic problem. Guests of EMR that purchase tickets to use the chairlifts would use the parking lot at the base area to access the ski area.

The analysis of potential injuries from people crossing the river is beyond the scope of this analysis.

**20.1.2 The bridge over Middle Boulder Creek is to be used for construction, on-going maintenance, and emergency access (p. 3-22). Does this mean that bridge would never be used by lift attendants or by daily/weekly/monthly inspectors or mechanics, or does the latter group fall under “on-going maintenance?” Does this mean that injured skiers (emergencies) will be regularly evacuated across this bridge and through the Eldora townsite? If so, how often do medical evacuations currently occur at the Ski Area?**

See Response 14.6.5. During the winter operating season, only critically injured guests would use the proposed emergency access bridge. It is anticipated that these evacuations would be rare. During the summer months, EMR could use the access bridge for maintenance activities. If minimal tools and equipment were required, EMR could ride the chairlift down to access maintenance projects. Larger equipment could require use of the access bridge.

**20.1.3 The proposed bridge across MBC to link Hessie Road and EMR could become a new access point for recreationists attempting to avoid Hessie Road during high volume use times. Even with the bridge being gated and signed it could create an access issue that will be very difficult to enforce. The DEIS provides an illustration of the proposed gate along the bridge which appears to be a simple arm that crosses the north side of the bridge approximately three feet from the ground. This will be easily circumvented by recreationists. Will there be personnel posted at this crossing during spring, summer, and fall to prevent illegal access when EMR is not in operation?**

There will not be personnel posted at the bridge crossing to prevent illegal access. The PDC in Table 2-3 of the DEIS states: “Gate the proposed Placer access bridge year-round and restrict access to administrative use.” Additional PDC has been incorporated into the FEIS (Table 2-3 p. 2-17).

See Responses 19.2.2, 8.3.20, and 8.3.17.

## 20.2 General

**20.2.1 Ambiguity and Lack of Enforcement - The Draft Environmental Impact Statement, especially in the Project Design Criteria Tables, frequently uses terms such as “to the extent possible,” “where practicable,” “is expected to be,” “where impacts are necessary,” “where necessary,” “to the extent practicable,” “where possible,” “to the extent feasible,” “are not expected to” etc. These terms allow considerable leeway in whether to follow best management practices or not. This allows the EMR to choose not to do something which would otherwise be essential simply because “it is too costly” or “we don’t have time.” The ambiguity must be eliminated by describing when an exception to the prescribed criteria or best practice would be permitted, or what to do if the action deemed appropriate did not result in the planned outcome. Additionally, a formal monitoring process must be specified to ensure all efforts to adhere to the Project Design Criteria and Best Management Practices are followed during construction and post construction. What independent third party shall be responsible for ensuring compliance and ongoing follow-up to evaluate the effectiveness of the various criteria and objectives? Of most importance is the water quality in the EMR and surrounding areas. Waters must be tested and monitored for Carbaryl, snow-making additives, avalanche control impacts, sediment etc. How often should the tests be done, what are acceptable levels of contaminants, what corrective measures are required and in what timeframe shall corrections be required? The Draft Environmental Impact Statement states that the “Responsibility for ensuring that required PDCs are implemented rests with EMR and the Forest Service. The enforcement mechanism for implementation of the specified PDC would be the terms and conditions of the SUP, and would extend to the Forest Service Special Use Permit Administrator, the District Ranger and the Forest Supervisor.” What does this mean? Prior to approving any changes at the EMR, these terms and conditions must be specified as noted in the above paragraph. How can the Forest Service deem it appropriate for the EMR to self regulate on any important expansion issue? The bias of the EMR has been made clear and to expect objectivity, thoroughness, and due diligence from them is not prudent. This needs elaboration and clarity to avoid unintended consequences. What does it state in the SUP? Clarity on the 2011 Master Plan - What does it mean when they state: “EMR did not propose all projects in the 2011 Master Plan for site specific environmental review in the EIS. Therefore, the projects in the Master Plan that are not part of the Proposed Action and/or Alternative 3 are considered reasonably foreseeable future actions.” Also, the 2011 Master Plan states, “Planned projects contained in this Master Plan are conceptual in nature and may be refined in the future, as long as the original intent of a planned project is maintained.” Please explain what projects remain a possibility and the process required to obtain approval. What happens when the Master Plan was accepted by Mr. Casamassa but the accepted Alternative does not mirror the accepted Master Plan? There is frequent reference to the Master Plan as a historical reference document thus it would seem necessary to correct the inconsistent 2011 Master Plan and future approved EMR expansion. Also, the Draft Environmental Impact Statement did not revisit night lighting or summer use at EMR. Can I safely assume these issues will not come up again unless a formal NEPA process occurs?**

The Forest Service is responsible for reviewing and enforcing the implementation of approved projects and required design measures and best management practices.

The 2011 Master Plan included more projects than what is currently being reviewed by the Forest Service for approval. Therefore, those additional projects that are not currently being reviewed may occur in the foreseeable future and will be further reviewed at that time. The future analysis of projects contained in the 2011 Master Plan could vary from the initial design. For example, if the concept of a chairlift in a location was planned in the Master Plan, as long as the chairlift is analyzed in the same general location (i.e., the general concept is maintained) the project can be refined moving forward. This occurred with the Placer chairlift and trails project. Refinements were made during the NEPA process, but the concept was maintained for a chairlift and trails in this area. These types of refinements are common in the site-specific NEPA analysis of a Master Plan. It is common for the NEPA process to change the original concept plan to address resource concerns or changed conditions.

Projects contained in the 2011 Master Plan that could be implemented in the future include the Moose Glade chairlift and terrain, additional snowmaking on those trails, and other projects described in Appendix A: Cumulative Effects Projects of the DEIS. These projects would need to be analyzed by the Forest Service in a future NEPA process prior to implementation. Night lighting and summer use were not included in the 2011 Master Plan; therefore, those project elements are not being analyzed through this NEPA process.

**20.2.2 We find the Sustainability section of Table 2.3 to be weak and suggest the addition of quantifiable sustainability goals.**

There are five PDC included for sustainability in the DEIS. Additional PDC have been incorporated into the FEIS (Table 2-3 p. 2-17) addressing incentives for public transportation and ride-sharing.

**20.2.3 Minimize or prohibit chipping of slash. Under a PDC, chips up to three inches deep could cover 40 percent of the ground. DEIS at 2-37. Decomposition of these chips could use up much of the available nitrogen (id. at 3-317) and occur slow enough to delay or prevent revegetation of disturbed areas.**

Chipping of slash is included in the DEIS as one potential means through which to dispose of slash. The impacts to soil and botanical resources resulting from chipping were disclosed in the DEIS, Chapter 3, Section J – Watershed, Wetlands, and Soils and Section I – Plants. Individual plants could be directly impacted by smothering with slash, chips, or soil, and could also have trees fall on them, potentially interrupting photosynthesis and reproduction (DEIS p. 3-271). The DEIS discloses that “chips decompose on the ground, immobilizing nitrogen during the early stages of decomposition. However, when the chips become mostly decomposed, nitrogen is released and soil nutrient availability increases. In addition, properly dispersed chips help retain soil moisture, provide habitat for soil insects and microbes, and ground cover for erosion control” (p. 3-317).

**20.2.4 Monitoring.** The Final DEIS should include substantially greater detail on what monitoring will take place to ensure that the Ski Area adhere to any and all approved project design criteria and best management practices. Water quality is of particular concern. Information on how often monitoring will occur, potential contaminants of greatest concern, acceptable levels of those contaminants, required corrective measures upon violations, which parties will be responsible for ongoing monitoring activities, and where monitoring reports will be made publicly available.

The Forest Service is responsible for reviewing and enforcing the implementation of projects and PDC. A requirement for a water quality monitoring program has been incorporated into the FEIS (Table 2-3 p. 2-22) including baseline water quality data collection, monitoring of water quality during construction, and long-term water quality monitoring. If this program identifies concerns, the ARP would determine appropriate mitigation and response measures. Reports would likely be located in the on-going EMR project file, accessible to the general public via FOIA requests.

**20.2.5** The FS apparently believes that all negative effects of the proposed expansion can be mitigated by the recommendations expressed in the PDC. Suppose, after the fact, it is determined that the PDC was inadequate, and unintended consequences occurred. Can EMR be compelled to take action, at its expense, to remedy the situation? What would be required to force EMR to comply? Or, do we have to accept the consequences of the FS's failure. Suppose the PDC is, in fact, adequate, but EMR fails to implement it. Does the FS have a team on the ground monitoring the work as it progresses? In these times of the sequester, does the FS have adequate staff? Does that team have the power to stop further construction until EMR makes remedies?

The Forest Service has the legal authority to enforce the terms and conditions of the SUP. The Forest Service and qualified personnel would provide construction oversight and on-going monitoring of site conditions on a routine basis. As a permittee, EMR is required to follow the terms of the permit and implementation requirements of a potential project approval.

## **21.0 OTHER**

### **21.1 General**

**21.1.1** DEIS Figure 12, "Water Resources and Alternative 2 Impacts", does not include the proposed new lifts or runs. The same is true for Figure 13 and alternative 3.

Figures 12 and 13 do contain proposed projects and VMP projects, but do not include proposed chairlifts. Figures 12 and 13 included in the FEIS have been edited and clarified in response to this comment.

**21.1.2** Impact of Tree Removal and Lift Placement on Avalanche Potential; Impact of Any Necessary Avalanche Control on Environment. No reference was made to whether the potential for impacts related to increased avalanche danger or need for avalanche control was studied, except for a brief mention of the following guideline in the proposed forest plan amendments: "(GL) Prohibit cutting trees or locating structures in areas that promote snow loading in avalanche starting zones." Avalanche danger certainly affects the safety of

**visitors to the ski area. Additional avalanche control and resulting noise affects wildlife as well as the town of Eldora. The type of explosives used for avalanche control may also affect water quality, soil, wetlands, vegetation, and wildlife.**

The proposed projects would not result in increased avalanche risk. The slope and tree cover throughout EMR's SUP area minimizes avalanche risk. No avalanche blasting would be expected to occur under the action alternatives. See Response 18.2.1.

**21.1.3 The Draft EMR EIS should contain better maps and better descriptions of the geographic features (such as existing and proposed ski runs and lifts, existing and historic private lands and public uses, and possible areas of sensitive environmental resources) to facilitate a better public understanding of the project.**

Refer to Chapter 6 of the FEIS for figures depicting existing conditions, proposed projects, and sensitive resources. Additional resource maps are contained in the Project file.

**21.1.4 It is common practice to use helicopters to transport and install ski lift towers. Indeed, it would likely be quite difficult to bring in some of the towers that would be needed for the Placer and Jolly Jug Lifts by ground vehicles, i. e., trucks. However, there is no discussion of helicopter use in the DEIS. Copter use could affect wildlife habitat and also noise for recreationists and residents of the Town of Eldora.**

See Response 18.1.1 for a discussion of helicopter noise impacts on recreationists and the Town of Eldora. Helicopter use would take place over approximately seven days for each chairlift, and would be expected to travel between the main EMR parking lot and the chairlift location for approximately 11 hours/day (between 7:00 a.m. and 6:00 p.m.), depending on weather conditions. Helicopters could also be used for logging operations for approximately seven to ten days and similar hours of operation. Helicopter use would only occur during the summer construction season. Based on wildlife (focusing on deer and elk) reactions to such tower installations at other ski areas (most notably Vail), the extent and duration of displacement varies by species, their extent of habituation, the type of summer habitat present and whether species are even in the vicinity at the time. Helicopter use for lift tower installation usually occurs during late summer (typically August to October) when animals are resident on summer range. Elk are generally more sensitive than deer. Elk are generally displaced from staging areas, lift corridors, and some access corridors for the period of tower preparation activities (typically four weeks of surveys, tree clearing, more surveys, digging footings, pouring foundations, etc.), while deer may only be displaced short distances (less than 100 yards) when and where humans are present. Both species are displaced greater distances from helicopter activity areas, including staging and tower locations and intervening flight corridors. Animal displacement from forested stands below flight corridors depends on the height of the helicopter passing overhead, which varies between and within ski areas. At EMR there are no deep valleys that would be crossed, so helicopters would usually be several hundred feet (relatively low) above the canopy, likely resulting in at least reduced habitat effectiveness if not local displacement (hundreds of yards) from the flight corridor. Flight corridors would shift intraday and over the course of tower installation as pilots take the shortest routes between the staging area and tower locations. As a result,

over the course of tower installation of an entire lift corridor, the helicopter effects zone “sweeps” across a broad triangle of habitat between the lift corridor and staging area. While helicopters are noisier than ground-based tower installations, noise per se is not necessarily an impact to wildlife and the construction period is typically shorter using helicopters. Considerably less habitat modification for lift tower access occurs when helicopters are used. Nevertheless, animals displaced by such construction activities (helicopter and ground) develop negative affinities to those impact areas that are gradually, but usually completely resolved over time.

**21.1.5 P. 2-47 shows that Alternative 2 would add 3212 linear feet of access road. Where are these roads?**

Roads are depicted on all figures, contained in Chapter 6 of the DEIS, with a brown line. Chapter 2 of the DEIS contains the following description of proposed roads:

“As depicted on Figure 2, additional road spurs would be constructed and maintained for the following proposed chairlifts and facilities: Placer Express chairlift, Jolly Jug chairlift, and Challenge Mountain Facility. As mentioned above, construction of the bottom terminal of the Placer Express chairlift would necessitate the construction of an access road and bridge across Middle Boulder Creek. The road spur to access the Placer Express chairlift would be approximately 256 feet long (116 feet on the north side of Middle Boulder Creek and 140 feet on the south side of Middle Boulder Creek). A road spur approximately 594 feet in length would be built to access the top terminal of the Placer Express chairlift. This road spur would also serve as a skier access trail during the ski season. The construction of the Jolly Jug chairlift would require an approximately 954-foot road spur to access the bottom terminal, and an approximately 247-foot road spur to reach the top terminal. The Challenge Mountain Facility would be reached by a road spur approximately 1,162 feet in length (this road would be built entirely on existing ski trails)” (DEIS p. 2-10).

**21.1.6 Health Department Review of Retail Food Establishments. The EIS indicates that the existing Lookout Facility seating will be expanded by 300 seats. This facility currently prepares and serves food to the public and is regulated by Boulder County Public Health. If the food services, preparation or cooking areas are remodeled or expanded a retail food establishment plan review with Boulder County Public Health will need to be conducted before any approval or construction begins for a new or expanded retail food facility. If the new Challenge Mountain Facility plan to prepare or serve food it will also be required by Boulder County Public Health to complete a plan review before any approval or construction begins.**

EMR would be required to obtain all necessary permits prior to construction.

**21.1.7 Generally, we recommend that the Aquatics Associates, Inc., 2012 report be included in the appendices. There were various conclusions in the Draft EIS on stream health and aquatic resources that did not appear to incorporate relevant findings and supporting analyses found in this report. Disclosure of this additional information would benefit the public by**

**better understanding the results of these analyses for these sections. The EPA is available for a broader discussion on this report and its findings if that would be useful.**

The Aquatics Associates, Inc. report is contained in the project file and is available on the project website ([www.eldoraeis.com](http://www.eldoraeis.com)).

**21.1.8 The impacts of constructing the proposed Four O'clock lift must be disclosed. EMR clearly wants to install this lift. See Master Plan at 5-5. One of the two "operational purposes" of this lift is as follows: It will allow access to existing and planned backside lifts – including Placer... -- to supplement the Challenge Express when the existing "summit lifts" or the Challenge Express are on wind hold. Id. at 5-5. Given EMR's desire to address the issue of lifts having to shut down on windy days (see section I above), it is hard to imagine that it would not want to construct this lift, especially if the Placer Lift is approved. Though the Four O'clock lift would be entirely on private land, it would affect the operation of EMR. An additional ski run would be required to connect the top of the lift to the existing trail system on the backside, and another one would be needed to access the front side runs. See Master Plan Figure 5. Vegetation removal would be required for the lift and runs, with possible effects on soils, water quality, and wildlife habitat. The Four O'clock lift probably would not get constructed unless the Placer Lift was also constructed, thus it is a "connected action" under NEPA, and must be analyzed. See 40 CFR 1508.25(a)(1). Therefore, the effects of the Four O'clock lift must be analyzed in the EIS.**

As defined by 40 CFR 1508.25(a)(1), actions are connected if they: "(i) automatically trigger other actions which may require environmental impact statements; (ii) cannot or will not proceed unless other actions are taken previously or simultaneously; (iii) are interdependent parts of a larger action and depend on the larger action for their justification."

The Four O'Clock chairlift is analyzed in the DEIS as a reasonably foreseeable future action in the cumulative effects analysis. See Response 19.2.4. The Forest Service has determined that the Four O'Clock chairlift is not considered a connected action in this analysis because it is independent in utility. This chairlift, included in the 2011 Master Plan, "would provide an important link in the "learning progression" for skiers who have advanced past beginner and novice terrain served by the teaching surface lifts, and the Little Hawk, EZ, Caribou and Sundance chairlifts. Additionally, the Four O'Clock chairlift would provide access to back-side chairlifts and terrain, including Placer and Moose Glade, if the Challenge chairlift were closed due to wind" (DEIS p. 3-31). Because this project and the proposed projects are able to be constructed and operated independently, the Four O'Clock chairlift was not considered as a connected action.